REPUBLIC OF ZAMBIA
MINISTRY OF AGRICULTURE AND
MINISTRY OF FISHERIES AND LIVESTOCK

ZAMBIA STATISTICS AGENCY
"Quality Statistics for Development"

# ZAMBIA FOOD BALANCE SHEETS REPORT 2019 – 2023

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COMESA

OFFICIAL STATISTICS OF ZAMBIA
Republic of Zambia

AFRICAN DEVLOPEMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
DE DÉVELOPPEMENT

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# ABBREVIATIONS AND ACRONYMS

| Abbreviation/Acronym | Definition |
|---|---|
| AfDB | African Development Bank |
| CBE | Customs Bills Entry |
| CBS | Cereal/Tubers Balance Sheets |
| CFS | Crop Forecasting Survey |
| COMESA | Common Market for Eastern and Southern Africa |
| CPC | Central Product Classification |
| DAZ | Dairy Association of Zambia |
| DES | Dietary Energy Supply |
| DRC | Democratic Republic of Congo |
| FAO | Food and Agriculture Organization of the United Nations |
| FBS | Food Balance Sheets |
| FBS_TWG | Food Balance Sheets Technical Working Group |
| FBS_TTWG | Food Balance Sheets Thematic Technical Working Group |
| FLI | Food Loss Index |
| FLP | Food Loss Percentage |
| GDP | Gross Domestic Product |
| GSARS | Global Strategy to Improve Agriculture and Rural Statistics |
| HA | Hectare |
| HS | Harmonized System |
| IDR | Import Dependency Ratio |
| Kg | Kilogram |
| mcg | Micrograms |
| MDER | Minimum Dietary Energy Requirement |
| MFL | Ministry of Fisheries and Livestock |
| mg | Milligrams |
| MoA | Ministry of Agriculture |
| MT | Metric Ton |
| NASS | National Agricultural Statistical System |
| NSMC | National Stocks Monitoring Committee |
| PHS | Post-Harvest Survey |
| PoU | Prevalence of Undernourishment |
| RAE | Retinol Activity Equivalent |
| RALS | Rural Agricultural Livelihoods Survey |
| SCCI | Seed Control and Certification Institute |
| SDGs | Sustainable Development Goals |
| SPARS | Strategic Plan for Agricultural and Rural Statistics |

| Abbreviation/Acronym | Definition |
|---|---|
| SSP | Sector Strategic Plan |
| SSR | Self-Sufficiency Ratio |
| SUA | Supply Utilization Accounts |
| TA | Technical Assistance |
| ToRs | Terms of Reference |
| UNPD | UN Population Division |
| ZamStats | Zambia Statistics Agency |
| ZRA | Zambia Revenue Authority |

# Foreword

The Ministry of Agriculture of Zambia has been producing the Cereal/Tuber Balance Sheet since 2001, focusing only on key staples such as maize, wheat, rice, sorghum, millet, potatoes, and cassava. However, stakeholders, including the Government, have called for the inclusion of non-cereal and tuber staple foods that are vital to the country's food security. This report addresses those concerns. As an essential decision-making tool, the comprehensive Food Balance Sheets (FBS) enable a complete analysis of the national food security situation by providing critical data on the availability, supply, and utilization of food resources. This information is crucial for assessing food sufficiency and evaluating the dietary energy, proteins and fats and micronutrients content accessible to the population, all of which inform policies aimed at enhancing nutrition and food security.

This report represents the first comprehensive Food Balance Sheets for Zambia. With support from the African Development Bank (AfDB), and under its fifth Statistical Capacity Building Program executed by the Common Market for Eastern and Southern Africa (COMESA) Secretariat, the country now boasts of a detailed FBS report covering the years 2019–2023. This significant advancement, led by the Ministry of Agriculture in collaboration with the Ministry of Fisheries and Livestock, and the Zambia Statistics Agency (ZAMSTATS), marks a transformative moment in the nation's agricultural data landscape.

The comprehensive FBS not only quantifies food supply but also provides a clearer understanding of Zambia's ability to sustain itself. It highlights areas of dependence on imports and offers insights into progress toward two of the Sustainable Development Goals (SDGs), namely those related to reducing undernourishment and food loss.

This initiative underscores Zambia's commitment to strengthening its agricultural statistics systems and enhancing food security for all. We extend our gratitude to the African Development Bank for its technical and financial assistance, as well as to all stakeholders whose collaborative efforts have made this significant achievement possible.

Hon. Rueben R. Phiri Mtolo, MP
Minister of Agriculture

Hon. Eng. Peter C. Kapala, MP
Minister of Fisheries and Livestock

# Acknowledgement

The Ministry of Agriculture, the Ministry of Fisheries and Livestock, and the Zambia Statistics Agency are pleased to present the very first comprehensive Food Balance Sheets report covering the years 2019-2023. This report provides an in-depth analysis of food supply and utilization patterns in the country, based on the compilation of Supply and Utilization Accounts (SUA) for food commodities. It adheres to international statistical standards and aligns with the framework of the Global Strategy for Improving Agriculture and Rural Statistics (GSARS).

We would like to express our heartfelt gratitude to everyone who contributed to this project. We extend special thanks to the African Development Bank (AfDB), through the Director of Statistics Department (Dr. Babatunde Samson Omotosho) and the Manager of the Statistical Capacity Building Division (Mr. Ben Paul Mungyereza), as well as the AfDB Country Manager in Zambia (Mr. Raubil Olaniyi Durowoju), for their timely and positive response to our request for technical and financial assistance, respectively. We particularly appreciate the expertise of Mr. Vincent Ngendakumana, Chief Agriculture Statistician at AfDB, whose guidance was crucial during the compilation process.

We also want to acknowledge the AfDB international consultant, Mr. Salou Bande, whose hands-on training and mentorship significantly empowered the Technical Working Group (TWG) throughout this initiative. Additionally, our gratitude goes to Dr. Chewe Nkonde, the AfDB national consultant, for his commitment and collaboration with the TWG, which contributed to the successful completion of this report.

Special thanks to the Common Market for Eastern and Southern Africa (COMESA) for their great contribution to the development of the Roadmap, within the implementation of Phase 5 of the Statistical Capacity Building Program of the Bank.

At the national level, the development of the Comprehensive Food Balance Sheet and the production of this report were overseen by a dedicated TWG, led by the Ministry of Agriculture. We sincerely appreciate all TWG members listed in the Annex of this report, as well as all stakeholders who provided vital data and insights throughout the process.

Through these collaborative efforts, we have produced a comprehensive resource that enhances our understanding of food supply dynamics in Zambia.

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# EXECUTIVE SUMMARY

## 1. Introduction

The Food Balance Sheet (FBS) is a detailed record of food supply and utilization of a given country over a specified period, compiled using rigorous analytical and statistical methods. The food supply, encompassing domestic production, imports, and stock changes, must equal total utilization, which includes exports, post-harvest losses, livestock feed, seed use, tourist consumption, food processing, food consumption, industrial use, and residual uses. The FBS is compiled for every food product consumed in a country, with all derived products captured through the Supply Utilization Accounts (SUA).

The compilation of the FBS provides a framework for deriving key indicators essential for decision-making in the agricultural sector and food systems of a country. These indicators include assessments of nutritional quality and dietary composition trends, the Self-Sufficiency Ratio (SSR), the Import Dependency Ratio (IDR), the Food Loss Index (FLI), and the Prevalence of Undernourishment (PoU).

Guided by the Strategic Plan for Agriculture and Rural Statistics (SPARS), Zambia aims to enhance its National Agricultural Statistics System (NASS), including prioritizing the development of comprehensive Food Balance Sheets (FBS) to monitor national food security policies and track progress towards achievement of related sustainable development goals (SDGs). This report is the outcome of Zambia's first-ever comprehensive FBS compiled using international guidelines developed under the Global Strategy to Improve Agricultural and Rural Statistics (GSARS). The FBS compilation for Zambia was conducted with technical and financial assistance from the African Development Bank (AfDB) and covers the period 2019 – 2023.

## 2. Approach and Data Sources

After the country sought technical and financial assistance from AfDB, the compilation of the Zambia FBS (2019 – 2023) began with development of a roadmap to guide the process. The roadmap proposed the institutional governance structure, key activities to be undertaken, resources required and timelines for completing all activities. Building on the existing framework of the Cereal/Tubers Balance Sheets, a multi-sectoral Food Balance Sheets Thematic Technical Working Group (FBS_TTWG) was established to technically coordinate the process in accordance with the GSARS guidelines. The key institutions involved included the Ministry of Agriculture (MoA), the Ministry of Fisheries and Livestock (MFL), and the Zambia Statistics Agency (ZamStats).

Data used in this report were collected using basic data sheets in Microsoft Excel format. The sources of data to compile the FBS included the Census of Population and Housing, Crop Forecasting Surveys (CFS), Post-Harvest Surveys (PHS), Rural Agricultural Livelihoods Surveys (RALS), Livestock and Fisheries Surveys, as well as administrative data from various institutions such as the Dairy Association of Zambia (DAZ), the Ministry of Tourism, and the Zambia Revenue Authority (ZRA). The main tools used to compile the FBS were the FBS compilation tool, the FBS formatting tool and the Trade Data Mapping Tool (TDMT). To be able to generate the nutrition indicators, the Zambia Food Composition Tables report was used as a source of conversion factors for computation of the indicators. Where data was missing, estimates were generated using appropriate formulas and data imputation approaches as stipulated in the GSARS guidelines.

# 3. Key Findings

The FBS results and other derived indicators for Zambia, for the review period 2019-2023, are summarized below:

## 3.1. Food Supply per capita per year (Kg)

This indicator measures the total amount of food available (Kg) for human consumption in a country or region in a year, divided by the total population. It is expressed in kilograms of food per capita per year.

The average annual per capita food supply for selected groups of vegetal products (plant-based foods) was 125.4 kg for cereals, 198.3 kg for starchy roots, 22.3 kg for vegetables, 3.3 kg for pulses, and 12 kg for fruits. Cereal supply increased from 117.8 kg in the base year to 130.3 kg in 2023. Starchy roots declined from 218.3 kg in 2019 to 182.9 kg in 2023, with a sharp drop from 220 kg in 2020 to 201.3 kg in 2021, primarily due to reduced supplies of potatoes and cassava products. Vegetables experienced a decline, notably from 27.1 kg in 2019 to 22.6 kg in 2020, mainly due to the reduced supply of tomatoes and its products. Fruits supply exhibited a U-shaped trend, decreasing from 13.1 kg in 2019 to 11 kg in 2021, then rising to 12.5 kg in 2023.

In terms of animal products, the annual per capita food supply was 8.7 kg for meat, 5 kg for milk, 0.8 kg for eggs, and 8.5 kg for fish. In general, the supply of animal products trended upwards or remained the same compared to the baseline year, except for eggs, which declined.

The average food supply per capita per year estimates for Zambia derived from the FBS results were compared to FBS results for Tanzania[1] (2014-2017) and to global estimates to establish the country's performance in terms of food supply relative to the region and the rest of the world. For Tanzania, average FBS results (2014-2017) on food supply per capita per year was 134 kg for cereals, 99 kg for roots and tubers, 69 kg for fruits, 47 kg for vegetables, 27 kg for pulses, 13 kg for meat products, 7 kg for fish and seafood, 35 kg for dairy products, and 1 kg for eggs (United Republic of Tanzania, 2019). The global average food supply per capita per year stands at 152 kg for cereals, 64 kg for roots and tubers, 95 kg for fruits, 114 kg for vegetables, 15 kg for pulses, 43 kg for meat products, 120 kg for dairy products, 18 kg for fish and seafood, and 10 kg for eggs (Roser, 2013; FAO, 2024).

When compared to results from Tanzania, Zambia's food supply per capita per year was only higher for starchy roots and fish & seafood. Moreover, the average food supply per capita per year in Zambia during the review period was lower than global estimates for all the selected food products except for starchy roots. This suggests that Zambia has a lot to do to enhance food supply per capita per year if the country wants to be at pace with some countries within the region and the rest of the world.

## 3.2. Dietary Energy Supply per capita per day

Dietary Energy Supply (DES) is a measure of the total amount of energy from food available per capita per day. It is expressed in kilocalories per capita per day.

[1] Tanzania is a neighbouring country where a similar TA was provided by AfDB to compile and generate FBS for 2014-2017 reference years.

Zambia's DES fluctuated from a peak of 2,384 kcal in 2021 to a low of 2,310 kcal in 2022 during the study period. Vegetal products consistently contributed 95.4% of total DES, with cereals and starchy roots contributing 48.7% and 22.8% respectively to the vegetal products DES. Among animal products, meat contributed 53%, followed by milk (17.5%) and fish (17%) to the animal products DES.

The average DES per capita per day was 2,340 kcal and this was sufficient to meet requirements by life stage as recommended by the World Health Organization. The recommended DES per capita per day is 550-700 kcal for infants (0-6 months), 700-900 kcal for Infants (7-12 months), 1,000-1,400 kcal for children (1-3 years), 1,400-1,600 kcal for children (4-6 years), 2,000-2,800 kcal for male adolescents, 1,800-2,200 kcal for female adolescents, and 1,800-2,200 kcal for moderately active adults (WHO, 2004).

## 3.3. Daily proteins supply per capita

Daily proteins supply per capita is the average amount of protein supply per person per day expressed in grams.

Vegetal products were the main source of proteins, contributing about 86% of daily per capita protein supply. Cereals contributed an average of 26.8 g per capita per day of proteins which represented about 63.2% of total daily per capita proteins supply from vegetal products. This was followed by oil crops which contributed an average of 8 g (18.8%), starchy roots about 4.6 g (10.8%), pulses 2 g (4.8%) and vegetables 1 g (2.4%). Animal sourced proteins contributed far less to daily per capita protein supply, contributing only 14%. The main sources of animal-based proteins were meat (3.6 g), fish and seafood (2.5 g), and milk (0.8 g).

Put together, the overall daily per capita supply of proteins in Zambia was, on average, about 49.4 g during the period 2019-2023. Compared with the FAO/WHO/UNU (2007) recommended intake rates of proteins per capita per day of 56 g (for a sedentary adult weighing 70 kg) and 80-120 g (for an active adult weighing 70 kg), the average daily per capita supply for Zambia fell short in terms of meeting proteins requirements for the adult population.

## 3.4. Daily fats supply per capita

Daily fat supply per capita is the average amount of fats supply per person per day expressed in grams.

From 2019 to 2023, daily fat supply per capita in Zambia rose by 18.3%, climbing from 48 g to 56.8 g. This increase was primarily driven by vegetal products, which saw a rise of 8 g per capita from 2019 to 2023.

Over 98% of vegetal products' daily fat supply per capita was from vegetable oils (48%), oil crops (26%) and cereals (24%). The top three contributors to animal products' daily fat supply per capita were meat (56.8%), animal fats (16.7%) and milk (16.7%).

The average fat supply per capita per day in Zambia, during the review period, was 51.7g. This was within the WHO (2018) recommended daily fats intake rate for adults with a sedentary lifestyle (44-77 g/day) but was below that for adults with a lifestyle that is moderate (55-90 g/day) or active (66-100g).

## 3.5. Supply of Minerals and Vitamins per capita per day

Minerals and vitamins play a crucial role in supporting bodily functions. Therefore, it is essential that food available in a country can meet the daily supply of these important nutrients on a per capita basis. A diet rich in minerals and vitamins helps maintain optimal health, prevents deficiencies, and reduces risk of chronic diseases like anemia and cardiovascular diseases. This comprehensive FBS compilation included estimation of supply of minerals and vitamins from all vegetal and animal products for the review period 2019 – 2023.

The minerals that were the focus of this study were six: Calcium, Iron, Magnesium, Phosphorus, Potassium and Zinc. In terms of vitamins, the ones considered were also six: Vitamin B2 (Riboflavin), Vitamin B1 (Thiamin), Vitamin A, Vitamin C, Vitamin B3 (Vitamin PP) and Vitamin B9 (Folate). The supply of each micronutrient was expressed as the average amount of supply per person per day in milligrams or micrograms. For all the 12 micronutrients, the main sources were vegetal products. The main findings that emerged from analysis of micronutrient supply per capita per day were as follows:

### *3.5.1. Supply of calcium per capita per day*

The average calcium supply per capita per day was about 324 mg during the review period. Calcium supply decreased from 341 mg in 2019 to 295 mg in 2022, but rebounded to 328 mg in 2023. The vegetal products supplying the most calcium were starchy roots (64.5%), with cereals and vegetables contributing an additional 25.2%. The supply of calcium from animal products was mainly from milk, which accounted for 88.6% of animal products sourced calcium.

Based on the recommended calcium intake rates by the Institute of Medicine (1997), the average daily per capita supply of calcium in Zambia was only sufficient for infants who require calcium levels ranging between 200-300 mg/day. For other life stage groups such as children, adolescents, adults, pregnant women and breastfeeding women, the recommended calcium intake was two to three times more than the average daily supply per capita of calcium computed in this report.

### *3.5.2. Supply of iron per capita per day*

The average daily per capita supply of iron in Zambia was 12.7 mg. The iron supply per capita per day for Zambia did not fluctuate that much during the review period. Cereals were the main source of iron supply per capita per day, accounting for 46.1% of iron sourced from vegetal products. The other products that made a meaningful contribution to vegetal sourced iron were starchy roots (36.8%), vegetables (7.5%) and oil crops (7.3%). Meat accounted for the largest share of iron from animal sourced food products contributing 59.7%. Offals and eggs correspondingly provided 21.4% and 14.4% of iron, while milk and animal fats together contributed about 4.5%.
The average supply of iron per capita per day of 12.7 mg was sufficient to meet the Institute of Medicine (2001) requirements for infants (0.27-11 mg), children (7-10 mg), male adolescents (11 mg) male adults (8 mg) but not female adolescents (15 mg) and female adults (18 mg). These results corroborate the findings from the Zambia Demographic Health Survey report of 2018 confirming iron deficiency among women of reproductive age in Zambia.

### 3.5.3. Supply of magnesium per capita per day

The average supply of magnesium per capita per day was about 362.1mg for the entire review period from the two main food groups. Results also show that the daily magnesium supply did not deviate much from the average daily supply per capita across the five years. Over 98% of magnesium was from vegetal products of which cereals contributed 56.9%, starchy roots 25.6%, and oil crops 11.5%. The supply of magnesium per capita per day from animal food products mainly came from meat (66.4%) and milk (24.8%). Offals, eggs and animal fats contributed about 4.3%, 4.2% and 0.3% respectively to the daily per capita supply of magnesium.

The FBS results for Zambia imply that the Institute of Medicine (1997) recommended magnesium daily intake of 300-400 mg was met given the average supply per capita per day of magnesium of 362.1 mg.

### 3.5.4. Supply of phosphorus per capita per day

Results show that the average supply of phosphorus per capita per day in Zambia (2019-2023) was 848.6 mg. During the reporting period, phosphorus supply per capita per day dropped by 6 mg from 2019 to 2020, but subsequently increased steadily, reaching the highest level of 875 mg in 2023. Like other minerals, phosphorus was mainly sourced from vegetal products which contributed 93.3% of total phosphorus supply per capita per day. Among vegetal products, cereals were the main source of phosphorus (62.1%), and the other key contributors were starchy roots (20.9%) and oil crops (11.4%). About 86% of animal sourced phosphorus was from meat (61.1%) and milk (24.9%).

Based on the results, the average supply of phosphorus per capita of 848.6 mg was sufficient to meet the Institute of Medicine (1997) recommended daily intake of phosphorus for infants (100-300 mg) and children (480-640 mg) but not for adolescents and adults whose phosphorus per capita per day intake rates collectively range between 1,000-1,400 mg.

### 3.5.5. Supply of potassium per capita per day

The average supply of potassium per capita per day was 1,920 mg. Results show that daily potassium supply per capita declined from 1,978 mg in 2019 to 1,811 mg in 2022, representing 8% reduction in the supply. However, there was an increase in daily potassium supply per capita by 6% from 2022 to 2023. About 95.7% of potassium was sourced from vegetal food products with starchy roots, cereals and oil crops being the main sources of daily supply of potassium per capita in this category. Collectively, the three products accounted for 87.7% of vegetal sourced daily potassium supply per capita. The main sources of daily potassium supply from animal products were meat (67.5%) and milk (23.8%), while offals, eggs and animal fats contributed only 8.7% collectively.

In terms of meeting dietary requirements, the average potassium supply per capita per day of 1,920 mg was only sufficient to meet the Institute of Medicine (2005) recommended dietary allowances for infants (400-1,000 mg) and not the other life stage groups. For other life stage groups such as children (3,000-3,800 mg), adolescents (3,800 mg), adults (2,800-3,400 mg), pregnant women (4,700 mg) and breastfeeding women (5,100 mg), the recommended potassium intake rates for each group were more than the average daily supply potassium per capita.

### 3.5.6. Supply of zinc per capita per day

The average supply of zinc per capita per day was 6.43 mg over the entire review period for the two main food groups. Results also show that daily zinc supply per capita increased by a modest 4.9% between the base year (2019) and the last year in the series (2023). Vegetal products contributed 90.64% to the zinc supply per capita per day. Within the vegetal products category, cereals, starchy roots and oil crops contributed a combined 97.2% of zinc supply per capita per day while meat accounted for 78.9% of zinc supply in the animal products group.

The average supply of zinc per capita of 6.43 mg was sufficient to meet the Institute of Medicine (2001) recommended daily intake of zinc for infants (2-3 mg) and children less than eight years (3-5 mg). However, the zinc daily intake requirements for children above nine years (8 mg), adolescents (9-11 mg) and adults (8-12 mg) were not met.

### 3.5.7. Supply of Riboflavin per capita per day

The average supply of Riboflavin (vitamin B-2) per capita per day was 0.59 mg during the period under review. The results show that the daily Riboflavin supply per capita remained the same between the base year (2019) and the last year in the series (2023). Vegetal products were the main source of riboflavin contributing about 85.9% of the riboflavin supply per capita per day. Among vegetal products, the main contributors of riboflavin were cereals (47.2%), starchy roots (23.7%), vegetables (12.8%) and oil crops (8.1%). For animal food products, the three main sources of daily supply were milk (44.3%), meat (33.8%) and offals (12.6%).

Based on the FBS results for Zambia (2019-2023), the average daily supply of riboflavin of 0.59 mg per capita was only sufficient to meet the Institute of Medicine (1998) recommended daily intake of riboflavin for infants (0.3-0.5 mg) and children (0.5-0.6 mg) and not adolescents (0.9-1.3 mg) and adults at different life stages (1.1-1.6 mg).

### 3.5.8. Supply of Thiamin per capita per day

The average supply of Thiamin per capita per day was 1.26 mg during the period under review. Results show that daily Thiamin supply per capita did not vary significantly from the average throughout the reporting period. Vegetal products were the main source of supply of thiamin, contributing about 95.29% to its daily supply per capita. Cereals, starchy roots and oil crops were the main sources of daily supply of thiamin per capita in the vegetal food products category, collectively accounting for 92.2%. For animal food products, the main sources of daily thiamin supply were meat (78.6%) and milk (11.9%).

On average, Thiamin supply per capita during the review period met the Institute of Medicine (1998) recommended requirements for all life stage groups (0.2-1.2 mg) in Zambia except for pregnant (1.4 mg) and breast feeding women (1.4 mg).

### 3.5.9. Supply of vitamin A per capita per day

During the review period, the average supply of vitamin A per capita per day was 134.5 mcg. Results show that daily vitamin A supply per capita steadily increased except between 2021 to 2022 when it dropped from 144.27 to 123.71 mcg. Vegetal products contributed about 59.63% of vitamin A

daily supply whereas animal products contributed 40.37%. Starchy roots, vegetables and cereals contributed 49.7%, 26.5% and 19.4% respectively to daily supply of vitamin A per capita in the vegetal food products category. The main sources of animal sourced daily vitamin A supply per capita were offals (68.3%), milk (16.9%) and eggs (10.6%).

According to the Institute of Medicine (2001), the recommended dietary allowance for vitamin A ranges between 400-900 mcg for all life stage groups. On average, vitamin A supply per capita during the review period was below the recommended dietary allowance for all life stages.

### *3.5.10. Supply of vitamin C per capita per day*

The average supply of vitamin C per capita per day was 104.5 mg during the period under review. Results show that daily vitamin C supply per capita reduced by 13% from 2019 to 2022 but increased by 6% from 2022 to 2023. Vegetal products were the main source of supply of vitamin C, contributing to about 99.65% while the contribution of animal products was negligible. Vegetables were the main source of daily per capita vitamin C supply within the vegetal food products category, contributing about 71.2%. Other significant contributors to per capita Vitamin C supply included starchy roots (15.6%), pulses (7.2%) and fruits (5.9%). For animal food products, vitamin C supply per capita was mainly from offals (46.1%), milk (36.9%) and meat (17.0%).

The recommended dietary allowance for vitamin C across different life stage groups ranges between 60 and 90 mg per capita per day (Institute of Medicine, 2000). Results in this report indicate that the average daily supply of vitamin C per capita in Zambia exceeded the required daily intake.

### *3.5.11. Supply of vitamin PP per capita per day*

The average supply of Vitamin PP per capita per day was 10.59 mg during the period under review. Results show that daily Vitamin PP supply per capita reduced by 7.3% from the base year to 2020 but increased steadily from 2020 to 2023. Vegetal products provided the most vitamin PP, contributing 92.49% to the daily supply per capita. Fruits contributed the most (95.5%) to vitamin PP from vegetal products while meat was the main source of vitamin PP derived from animal products.

Vitamin PP supply per capita during the review period was, on average, above the Institute of Medicine (1998) recommended requirements for infants (2-4 mg) and children (6-8 mg), but was insufficient for other groups such as adolescents (12-16 mg), adult men (16 mg), adult women (14 mg), pregnant women (18 mg) and breast feeding women (17 mg).

### *3.5.12. Supply of Folate per capita per day*

Folate per capita per day in Zambia from 2019-2023 was, on average, about 6.91 mg. Results show that daily Folate supply per capita reduced by 28% from the base year to 2023. Folate was only sourced from vegetal products with the only contributor being vegetables.

The recommended dietary allowance of Folate by the Institute of Medicine (1998) is lowest in infants (0.065-0.08 mg) and highest in pregnant women (0.6 mg). The average Folate supply per capita during the review period was more than adequate for the Zambian population at all life stages.

## 3.6. Self-Sufficiency Ratio

The Self-Sufficiency Ratio (SSR) compares the magnitude of a country's agricultural production to its domestic utilization. For Zambia's FBS results (2019-2023), the overall SSR was lowest in 2019 which stood at 101.40% and highest in 2021 at 120.2%. When disaggregated by main food groups, vegetal products' SSR was lowest in 2019 and 2020 at 101.7% and highest in 2021 at 120.6%. Several vegetal products had SSR greater than 100% with the sugar and sweeteners food group recording a SSR of 248.8%. However, there were a few other vegetal food products that had SSR average below 100 such as vegetable oils (45.4%), vegetables (97.2%), fruits (86.3%) and alcoholic beverages (92.7%). The SSR for animal products was lowest in 2022 (90.5%) and highest in 2023 (99.9%). Whereas the overall SSR implies that the country was self-sufficient, disaggregated data of the two main food groups demonstrates that self-sufficiency did not cut across all food products.

## 3.7. Import Dependency Ratio (IDR)

The Import Dependency Ratio (IDR) compares the magnitude of a country's imports to its domestic utilization. The Zambia FBS results show that the minimum IDR for vegetal products was 5.5% recorded in 2022 and 2023, and the maximum was 8.3% in 2021. For animal products, the minimum and maximum IDR were 10.8% (2021) and 33.8% (2022) respectively. Overall, the IDR during the reporting period when animal and vegetal products were combined ranged between 6 and 8.4%. According to FAO (2017), the IDR results for Zambia entail that the country generally had a low dependency rating (which indicates self-sufficiency in production) except for animal products in 2022 when the IDR had a moderate dependency rating of 33.8% (which indicates some reliance on imports).

## 3.8. Food Loss Index (FLI)

The trend of FLI for Zambia is mainly explained by the level of losses of 3 commodities: potatoes, sweet potatoes and rice. The global situation of losses has improved in 2020 as compared to the base year with a drop of the index by 3.3%. An upward trend is observed from 2021 to 2023 due to the increase of losses for the same 3 commodities, but the impact was not enough to bring the FLI to its base year level. Despite efforts in keeping losses below the base year level, the FLI fell short of achieving the SDG target 12.3, which aims to halve food losses along the supply chain.

## 3.9. Prevalence of Undernourishment (PoU)

The prevalence of undernourishment (PoU) indicator estimates the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels required to maintain a normal, active and healthy life. According to the results generated for this report, the PoU in Zambia ranged between 27.3% and 29.8%, with the highest in 2022 and the lowest in 2021. Literature indicates that PoU levels between 25% and 35% signify a high prevalence of undernourishment, highlighting a significant risk within the population. The PoU results for Zambia suggest that the country was off-track in achieving SDG target 2.1 during the review period[2].

[2] SDG 2.1 aims at ending hunger and ensuring access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

### 3.10. Comparison of selected indicators produced by the country's FBS process vs FAOSTAT results

Comparison was made between results generated through the FBS compilation process conducted by the country (process undertaken to generate this report), and those generated by FAO that are available through the FAOSTAT website and its annual publication "The State of Food Security and Nutrition in the World". The four indicators compared were Dietary Energy Supply per capita per day, supply of proteins per capita per day, supply of fats per capita per day, and Prevalence of Undernourishment (PoU). For the first three indicators, results generated by the FAO were only available up to 2022. Therefore, a four-year period from 2019-2022 was used to compare the two sources of FBS data. The PoU results available from FAO were moving averages for the periods 2019 – 2021 and 2020 – 2022. To facilitate comparison between the country and FAO PoU results, adjustments were made to the country generated results by computing averages that aligned with the periods used for the FAO moving averages.

The average DES generated through the country FBS process was 127.72 kcal per capita per day higher than that generated by FAO. Similarly, the average protein supply per capita per day from the country FBS was 5.75 g greater than the FAO figures. In addition, the average fat supply per capita per day for the country results exceeded the FAO results by 5 g. For the period 2019-2021, the difference between the PoU generated by FAO and that generated by the country was of 2.2 percentage points. The difference reduced to 0.9 percentage points during the period 2020-2022.

The difference in data used by the two sources of FBS results, for example, population, production and food loss, contributed to the disparity in results of the four indicators. Despite the disparity, the interpretation of the results from the two sources was the same across the four indicators. Therefore, the validity of the country FBS results was strengthened.

## 4. Constraints

In the process of compiling the Zambia FBS results for the period 2019-2023, a few constraints were encountered that somewhat threatened the effective and timely delivery of a comprehensive FBS. The first constraint was the unavailability of data needed to populate SUA basic data files for sectors not captured by nationwide surveys. The second constraint arose from delays in gaining access to data due to busy schedules or data confidentiality concerns of those holding the information. Another major constraint was the challenge imposed by the timing of other work commitments for members of the FBS_TWG, which affected their participation in the capacity-building workshop.

## 5. Lessons Learnt

Despite the constraints highlighted above, the comprehensive FBS compilation was successfully completed, and three lessons were learned from the entire process. First, the establishment of the FBS_TTWG was an important part of the process, as it ensured that all the sectors were represented for the successful compilation of the SUA basic data. With support from the international and national consultants, the team was able to address some of the data challenges, which in turn improved the accuracy of data submitted in the SUA basic data files. Second, the challenges posed by data inconsistencies, missing data and slow response from those responsible for providing data signaled to the FBS_TWG group the need to begin the process of data collection in a timely manner. Third, the compilation of the comprehensive FBS has expanded the number of indicators that can be captured for effective policy decision making.

## 6. Conclusion and Recommendations

The MoA, MFL and ZamStats successfully compiled a comprehensive FBS for the period 2019 – 2023 with technical and financial assistance from the AfDB. This unprecedented achievement will significantly contribute to establishing a solid foundation for the country to generate key indicators that would be useful to key actors in both the private and public sectors. This is particularly vital for promoting investments aimed at enhancing the food security situation on a consistent basis, improve health outcomes for the Zambian population, positioning the country on a trajectory toward self-sufficiency in key commodities, and achieving relevant SDG targets before 2030.

To ensure that this process of FBS compilation is carried out sustainably, the following recommendations, both that are expected to engender efficiency in the compilation process and those intended to be a catalyst for policy action, are herewith proposed:

i. Members of the FBS_TWG who missed the training, particularly on the use of the FBS compilation tool, need to undergo training to ensure that more staff are exposed to the tool. With minimal support from AfDB, this training can be conducted by those who attended the entire session on the use of FBS Compilation Tool.
ii. The FBS_TWG should be expanded to include additional strategic partners that could aid in data compilation. This should encompass various commodity associations and policy think tanks.
iii. The Cereal and Tuber Balance Sheet (CBS) should not be completely abandoned as it serves as an early warning tool for the staple food security position by forecasting surpluses or deficits of key commodities such as maize, rice, wheat and cassava. Therefore, both the comprehensive FBS and the CBS should be conducted simultaneously, as they provide essential information for decision-making in the short, medium and long term.
iv. To bridge the gap of missing data for the compilation of the FBS, it is recommended that the CFS, PHS and other relevant surveys include modules to capture data on some of the missing information. Further, there is a need to strengthen collaboration with organizations that collect data relevant to the FBS process to mitigate delays in data access.
v. Despite the relatively favorable high DES, the food insecurity continues to be a major concern due to the high prevalence of undernourishment in the country. This disparity calls for deeper analysis and policy action to work toward achieving SDG Target 2.1 stated as follows: by 2030, to end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
vi. In this report, some other important micronutrients, such as iodine and vitamin B12, were not included because Zambia does not yet have the necessary conversion factors. Future FBS reports should incorporate analyses and results of micronutrients relevant to Zambia once these conversion factors become available.
vii. In the same vein, certain food products, such as fish and seafood, were not included in the estimates of the daily supply of some micronutrients due to lack of relevant conversion factors for the calculations. Therefore, it is recommended that once these conversion factors become available, future FBS reports should include the computations of the contributions of fish and seafood to the daily supply of calcium and iron, respectively.

viii. Seasonal forest food commodities, such as mushrooms, caterpillars, honey, and fruits (e.g. masuku (Uapaca kirkiana)and masau (Ziziphus mauritiana)), have not been considered due to lack of related basic data. Given their critical role in Zambia's food system, it is therefore recommended that for future FBS compilation cycles specific related surveys and/or studies be conducted so that such food commodities are also captured.

ix. FBS results for Zambia (2019-2023) estimated average daily supply of iron per capita in Zambia to be 12.7 mg. While this amount was sufficient for infants, children, male adolescents and adult men, the daily supply of iron per capita in Zambia was below the Institute of Medicine (2001) recommended daily intake rates of iron for adolescent females (15 mg) and adult women (18 mg). There is need to enhance implementation of policy actions to help address iron deficiency across various demographics in Zambia, especially for adolescent females and adult women.

At the dissemination meeting for the Zambia Food Balance Sheets (2019–2023) held in August 2025, stakeholders emphasized that the report's findings should inform stronger policy actions to enhance food and nutrition security in Zambia. Four key recommendations emerged. First, they called for increased support to smallholder farmers to promote nutrition-sensitive agriculture through diversification beyond starchy staples, in order to close protein and micronutrient gaps. Second, they recommended accelerating efforts to reduce food losses by investing in storage, processing, and post-harvest management. Third, stakeholders stressed the need to expand social protection and nutrition interventions to address persistent undernourishment. Finally, they urged greater investment in livestock and fisheries development—particularly in animal feed, veterinary services, and smallholder commercialization—to improve the contribution of animal products to national nutrition.

# CHAPTER 1: INTRODUCTION, AND CONCEPTS AND DEFINITIONS

## 1.1 Introduction

### 1.1.1 What is a Food Balance Sheet?

A country's Food Balance Sheet (FBS) is a comprehensive record of food supply and utilization during a specified reference period compiled using rigorous analytical and statistical methods. The total supply of a given food product comprises domestic production, quantities imported, and the amount of the product that is either added to or taken from stocks. Total utilization, on the other hand, includes quantities exported, losses along the supply chain, quantities used for livestock feed, amount for seed use, food consumption by tourists, food processing, food consumed by the residents, industrial use, and residual uses. By implication, total supply from all sources must equal the quantities allocated to all sources of total utilization.

Following set guidelines, FBS compilation is carried out for every food product consumed within a country with all derived products (captured in Supply Utilization Accounts (SUA)) converted to the primary product. Once this is complete, the primary commodity equivalent balances of all food products are then combined into a single overall FBS from which various statistics are generated to inform decision making at national level.

### 1.1.2 Importance of the Food Balance Sheet Statistics

The FBS are crucial in assessing a country's resilience vis-à-vis the food security status of its population. This is key for evidence-based planning and for monitoring progress toward achieving targets such as Sustainable Development Goal Target 2.1: ***By 2030, to end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.***

The FBS compilation provides a framework for deriving key indicators that are critically important for decision-making, particularly in a country's agricultural sector and food systems. Some of the indicators derived from the FBS include:

i. indicators for assessing the quality of nutrition and dietary composition evolution over time;
ii. food production self-sufficiency and food imports dependency ratios;
iii. the Food Loss Index (FLI); and
iv. the prevalence of undernourishment.

Equipped with these indicators, key stakeholders can assess resilience in the food supply chain and take prompt remedial actions if needed. In other words, these metrics produced at the commodity or aggregate level, constitute valuable information for decision-makers in the agricultural sector, assisting them identify gaps in food supply and better orient public and private investments.

### 1.1.3 Food Balance Sheet Compilation in Zambia

Zambia has embarked on improving its National Agricultural Statistics System. This has been enabled through the first Strategic Plan for Agricultural and Rural Statistics of Zambia (SPARS_ZAM 2019-2023), which provided an overall strategic direction for strengthening the National Agricultural Statistical System (NASS) in the country. Additionally, the recent Sector Strategic Plan for Statistics (SSP 2022-2026) includes FBS as one of the priority activities to monitor the national food security policies and track against related SDGs.

#### *1.1.3.1Justification of AfDB Technical Assistance to Zambia for FBS Compilation*

In 2017, new guidelines on the approach to be used for compiling SUA/FBS were developed under the Global Strategy to Improve Agricultural and Rural Statistics. These guidelines are predicated on the Global Strategy's three foundational pillars:

i. produce a minimum set of core data;
ii. better integrate agriculture into the national statistical systems; and
iii. improve governance and statistical capacity building. The guidelines represent the latest innovations in both the imputation of missing data and the balancing of food commodity accounts.

To date, Zambia has been compiling Cereal/ Tubers Balance Sheets (CBS) and has yet to migrate to a more comprehensive Food Balance Sheets (FBS) compilation framework due to lack of adequate capacity. In this regard, the Ministry of Agriculture (MoA), in collaboration with the Zambia Statistics Agency (ZamStats) and the Ministry of Fisheries and Livestock (MFL), has formed a national tripartite partnership to establish a robust, upgraded and sustainable comprehensive Food Balance Sheets compilation system for Zambia.

The national tripartite partnership has sought technical and financial assistance from the African Development Bank (AfDB) to improve the current CBS compilation system, by improving and upgrading it to a Food Balance Sheets compilation system that complies with international standards and guidelines. The technical assistance has focused on the following areas:

i. building capacity of national staff in using the new FBS compilation guidelines and related tools (FBS Compilation Tool, Trade Data Mapping Tool, and FBS Formatting Tool);
ii. training national FBS team in deriving related SDGs indicators, namely the Food Loss Index and the Prevalence of Undernourishment;
iii. compiling SUA for the years 2019 to 2023 and producing FBS results for the same period, including related SDGs indicators; and
iv. producing and publishing a comprehensive report that details the methodology used and presents the analyzed results.

### *1.1.3.2 Institutional Framework for FBS Compilation*

The key institutions that will coordinate and ensure sustainable compilation and production of FBS statistics in Zambia are MoA, ZamStats and MFL. This is due to the strategic roles these three institutions play in the collection, management and analysis of data relevant to FBS compilation. MoA operates two data supply systems:

i. survey data which is collected through empirical sampling and estimation procedures, and
ii. administrative data collected by staff as part of their routine work. The survey data mainly comes from the Crop Forecasting Survey (CFS) and the Post-Harvest Survey (PHS). ZamStats is the sole entity responsible for the publication of official statistics in Zambia, providing mechanisms for coordination, collection, processing, storage, use, management and presentation of statistical data. MFL has the mandate to deliver credible and reliable quality fisheries and livestock statistics for evidence-based policy-making, ultimately enhancing user satisfaction.

To effectively implement the FBS compilation, a structure has been formerly set up comprising of staff from the institutions. To this end, a core team has been nominated from the three institutions to lead the process of collecting SUA basic data, compiling Food Balance Sheets and securing the related database. In addition, a FBS Technical Working Group (FBS_TWG) has also been put in place to review FBS results generated by the core team. The composition of the FBS_TWG is designed to include SUA/ FBS basic data providers, and users to ensure ownership, covering crops, livestock, fisheries and cross-cutting areas as thematic sub-groups of FBS_TWG. The FBS results are presented to experts in agriculture, food security, and nutrition for technical validation. The institutions involved include, in addition to the FBS TWG, the National Food and Nutrition Commission, the University of Zambia, World Vision Zambia, the Agricultural

Consultative Forum, the Indaba Agricultural Policy Research Institute, and the Jesuit Centre for Theological Reflection. Thereafter, the FBS results is presented to the National Stocks Monitoring Committee (NSMC), comprising other public and private sector stakeholders, for further technical validation. To conclude the process, the results will be adopted by the MoA and MFL through their respective Permanent Secretaries, and by ZamStats through the Statistician General.

## 1.2 Concepts and Definitions

The process of compiling FBS cannot be undertaken without a thorough understanding of the definitions of related key components. Based on the guidelines for FBS compilation, this section provides working definitions of the SUA/ FBS components, additional variables needed to estimate per capita nutrient availability, and other indicators derived from the FBS.

### 1.2.1 Supply and Utilization Accounts and FBS Components

The various components defined in this section make up the Supply Utilization identity as presented below:

$$Production + Imports - \Delta Stocks = Exports + Food + Feed + Seed + Tourist\ Food + Food + Industrial\ Use + Loss + Residual\ Use \quad \textit{Equation 1}$$

#### 1.2.1.1. Production

This refers to all production quantities of a given agricultural commodity within a given country, including both commercial and non-commercial agricultural production (such as that from home gardens or subsistence agriculture).

This component includes crops, livestock, and fisheries. The component comprises the production of primary and processed products. The production of primary products is reported at the farm-gate level, so that it does not include harvest loss. The quantity of processed products for a given commodity refers to the volumes of output obtained after the transformation of that commodity.

### 1.2.1.2. Imports and Exports

The general definition of imports and exports cover both goods and services. However, in the framework of the FBS, this coverage is restricted to goods.

An import refers to a product brought into a given country from an external source. It is the transboundary flow of goods destined for a given final destination country that add to the total supply of goods available in that country. Exports can be understood as transboundary flow of goods from a given country of origin. It is the transboundary flow of goods from a given country of origin that takes away from the total availability of goods in that country.

It is important to underline that re-export, which refers to goods that enter and exit a given country without any type of transformation, should be added to exports. It should be noted that imports and exports estimates should endeavor to cover both official and unofficial trade flows.

### 1.2.1.3. Stocks

Stocks are defined as the aggregate total of products allocated to storage for later use. In the case of FBS, the stocks variation is considered and not the quantities of stocks themselves. It comprises changes in stocks occurring during the reference period at all levels from production to retail level. Stock variation is defined as closing stocks minus opening stocks in a given year. Stock change may be positive (when we add to stock) or negative (when we remove from stock).

### 1.2.1.4. Food Availability

In the context of the FBS, food availability refers to quantities of any substance, whether raw, processed or semi-processed (including drinks) available for human consumption during a given reference period at the retail level by the country's resident population. For this reason, any waste (and/or loss) that occurs at the retail or consumer levels is included in this quantity, since that food was technically available for human consumption.

### 1.2.1.5. Food Processing

Food processing refers to quantities of a food product that are directed toward a manufacturing process and are then transformed into a different edible commodity. Food processing quantities are linked to the production of derived commodities through extraction rates.

### 1.2.1.6. Feed

Feed is defined as all quantities of commodities both domestically produced and imported that are available for feeding livestock.

### 1.2.1.7. Seed

Seed is defined as any quantity of a commodity set-aside for reproductive purposes. This can include seed for sowing, plants for transplanting, eggs for hatching, and fish used as bait. For crops, seed use each year t is a function of a seeding rate and a sown area in the following year, t+1.

$$\text{Seed use (MT)}_{t} = \text{Seed rate } ({}^{MT}/_{HA}) * \text{Sown area (HA)}_{t+1} \quad \text{Equation 2}$$

where MT is metric ton and HA is hectare

### 1.2.1.8. Loss

Food loss refers to the quantities of a product that leave the supply chain and are not diverted to other uses. Loss results from an involuntary activity and can occur at any node of the supply chain after the harvest and up to (but excluding) the retail/consumption stage.

### 1.2.1.9. Tourist Food

Tourist food refers to food that is available for consumption by non-resident visitors in a given country during the course of their stay. This variable is expressed in net terms in the FBS (as food available for consumption by incoming visitors minus food that would have been consumed by residents who have travelled to other countries).

### 1.2.1.10. Industrial Use

Industrial use is defined as any quantity of a given food product used in some non-food transformation or manufacturing process, including products used in biofuels, cosmetics, detergents, or paints.

### 1.2.1.11. Residual and other uses

Residual and other uses can, in most cases, be defined as the combined imbalance and accumulated error in the supply – utilization equation. As such, this category is computed ex-post as a balancing item and is not independently estimated. If all other utilizations within the equation are accounted for, and there is no measurement error, then the residual would be calculated as zero.

## 1.2.2 Additional Variables

The supply and utilization components described above cover all aspects of the basic identity. However, using the FBS Tool, some additional variables are needed to estimate per capita nutrient availability. These include the following.

### *1.2.2.1 Population*

This is defined according to the UN Population Division's (UNPD) definition as, "de facto population in a country, area or region as of 1 July of the year indicated." This definition includes not only citizens, but also all other residents.

### *1.2.2.2 Extraction rates*

These are parameters that reflect the loss in weight during the conversion of a given primary product to the derived product. Extraction rates are typically expressed as a percentage and are calculated as the amount (by weight) of the derived product that is produced using a given amount of input product.

### *1.2.2.3 Processing shares*

In the context of the FBS, processing shares are percentages of the amount of a given commodity that are thought to be dedicated to a specific transformation process. They are often necessary for the composition of FBS because goods can be processed into a range of derived products, and the input used to produce these derived goods is seldom known with certainty. As such, shares can be applied to the amount of a good sent for processing to calculate the volume of input into a given transformation process. An extraction rate can then be applied to those inputted quantities to derive a production estimate.

## 1.2.3 FBS Derived Indicators

While analyzing the food situation of a country, one of the important aspects is to know how much of the available domestic food supply has been imported and how much comes from the country's domestic production. There are two (2) indicators used to measure these aspects; The Self-Sufficiency Ratio (SSR) and the Import Dependency Ratio (IDR). These indicators are used to portray the capacity of a country to feed its people based on its own production and/or food imports from other countries.

### *1.2.3.1 Self-Sufficiency Ratio (SSR)*

This indicator compares the magnitude of a country's agricultural production to its domestic utilization. It is computed using the formula:

$$SSR = \frac{Production}{(Production + Imports - Exports - \Delta Stock)} \times 100 \quad \textit{Equation 3}$$

The minimum value for the SSR is zero. SSR is not expected to have negative values for the simple reason that none of the involved variables (production, import and domestic supply) can be negative. However, SSR can be more than 100%. When the SSR is more than 100%, it means that the production is higher than the domestic use. In this case, the surplus represents the proportion of net exports and/or transfers to stocks.

Computing SSR at an aggregate level, which involves heterogenous products (e.g. grand total, vegetal products group, and animal product group), requires the weight of such products to be converted first in a standard and homogeneous unit, such as caloric contents.

### *1.2.3.2 Import Dependency Ratio (IDR)*

This indicator compares the magnitude of a country's imports to its domestic utilization. It is computed using the formula below:

$$IDR = \frac{Imports}{(Production + Imports - Exports - \Delta Stock)} \times 100 \quad \textit{Equation 4}$$

The minimum value for IDR is zero. Like SSR, IDR is not expected to have negative values for the simple reason that none of the involved variables (production, import and domestic supply) can be negative.

### 1.2.3.3 Food Loss Index (FLI)

The SDG that speaks to issues of food loss is SDG 12: ***Ensure sustainable consumption and production patterns.*** Of specific focus is Target 12.3 which envisions that "***By 2030, to halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses, food loss percentages by commodity and in aggregate by country***". The Food Loss Index (FLI) is the indicator used to measure and monitor food losses along the supply chain, from production to retail level. The purpose of this index is to allow policy makers to look at the positive and negative trends in food loss over time. Analyzing the trend (versus the level) helps monitoring the food supply system to improve efficiency against food losses.

The steps for compiling the FLI from FBS data are as follows:

i. Select basket of commodities;
ii. Compile Food Loss Percentages (FLP) for a given year;
iii. Compile the FLI as a ratio of FLP in current period to FLP in base year; and
iv. Interpret the results.

The selection of the basket of commodities is based on the international dollar value of the commodity in the base year. The default selection criterion used at international level is to select 10 priority commodities as follows:

a. Compile value of production for every commodity;
b. Group commodities by category and rank them; and
c. Select the top two crops per category/ commodity group.

The 10 commodities should be within the five main headings, with two commodities per heading:

iv. Cereals & Pulses
v. Fruits & Vegetables
vi. Roots & Tubers and Oil-Bearing crops
vii. Animal Products
viii. Fish and Fish Products

The Food Loss Percentage (FLP) over the commodity basket in a given year t is computed as follows:

$$FLP_t = \frac{\sum_j L_{jt} * (q_{jt_o} * p_{jt_o})}{\sum_j (q_{jt_o} * p_{jt_o})} \qquad \textit{Equation 5}$$

Where:

$L_{jt}$=loss percentage (estimated or observed)for commodity j in year t
$t_0$=the base year
$q_{jt0}$=production plus imports for commodity j in base year
$p_{jt0}$=international dollar price for commodity j in the base year

The loss percentage for each commodity was obtained from local sources, mainly the Ministry of Agriculture and the Zambia Statistics Agency. The percentages were validated during meetings of the technical working group prior to the generation of the FBS results.

In addition to the FBS results, the computation of FLI requires data on commodity prices. The loss percentage for a commodity j in a given year t is computed as the quantity of loss for that commodity in year t, divided by the sum of production and imports of the same commodity in the year t.

The FLP is the average percentage of supply that does not reach the retail stage. It gives the average level of losses and these help countries to assess the magnitude of the problem relative to other countries or in the international context. The FLP helps one to assess a country's food system efficiency and summarizes the magnitude of the problem.

The FLI is computed as a ratio of Food Loss Percentage (FLP) in the current period to the FLP in the base period multiplied by 100, as per the formula below:

$$FLI_t = \frac{FLP_t}{FLP_{to}} \times 100 \qquad \textit{Equation 6}$$

The FLI shows how much losses move from the baseline value equal to 100 in the base year, thus it reveals trends in efficiency over time. For example, if the FLP changes from 20% in the base period (set at 100) to 15% in the current period, the FLI will return a value of 75 in the current year, meaning that there has been an efficiency gain of 25 percentage points in the food system, hence a higher share of total supply reaches the retail stage undamaged.

More details on the methodology used are presented in Annex 1.

#### *1.2.3.4 Prevalence of Undernourishment (PoU)*

According to FAO, undernourishment is defined as a ***situation in which an individual's usual food intake is insufficient to provide the minimum dietary energy intake necessary for a normal, healthy and active life***. The Prevalence of Undernourishment (PoU) is an estimate of the proportion of the population whose habitual food consumption is insufficient to provide the dietary energy levels that are required to maintain a normal active and healthy life. It is expressed as a percentage of the population that is undernourished or food deprived. The undernourished or food deprived are those individuals whose food intake falls below the minimum level of dietary energy requirements.

The PoU is an indicator used for monitoring progress towards achievement of SDG Target 2.1, which is stated as ***"By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round***." The indicator is useful in identifying national and global trends in population-level undernourishment.

The computation of the PoU is based on the calculation of four key parameters for a country: the average amount of habitual daily per capita food consumption (the food available for human consumption is used as a proxy), the level of inequality in access to food, the asymmetry in the distribution of habitual per capita consumption and the minimum dietary energy requirements of the population under analysis.

This indicator is defined within a probability distribution framework as follows:

$$P(U) = P(x < MDER) = \int f(x|DEC, CV, Skew)dx \qquad \textit{Equation 7}$$

Where:

- P(U) is the proportion of undernourished in total population;
- DEC is the average of the distribution of habitual daily per capita dietary energy consump- tion in the population;
- CV is the coefficient of variation of the distribution of habitual daily per capita dietary energy consumption in the population;
- Skew is the skewness that characterize the asymmetry of the distribution of habitual daily per capita dietary energy consumption in the population; and
- MDER is the minimum dietary energy requirements of the population.

This indicator ranges from 0% (no undernourished population) to 100% (the entire population is undernourished). Within a given country, a higher value of this indicator means that more people suffer from undernourishment (food deprivation). Table 1 shows five thresholds of PoU and the corresponding interpretation of level of undernourishment intensity.

**Table 1: PoU thresholds and levels of undernourishment intensity**

| PoU Thresholds | Level of PoU intensity |
|---|---|
| **< 5%** | Very low |
| **5 – 14.9%** | Moderately low |
| **15 – 24.9%** | Moderately high |
| **25 – 34.9%** | High |
| **35% and over** | Very high |

More details on the methodology used are presented in Annex 2.

# CHAPTER 2: APPROACH AND DATA SOURCES

## 2.0. Chapter 2 Overview

This chapter presents the methodology used to compile the Zambia FBS results for the period 2019 – 2023. The methodology adheres to the new guidelines for FBS compilation established within the framework of the Global Strategy to Improve Agricultural and Rural Statistics (GSARS). Key activities undertaken by the national FBS Team in Zambia (comprising TWG_FBS members from MoA, MFL and ZamStats) are also highlighted. The Zambia FBS Team received significant support from the National Consultant hired by the AfDB, who worked under the guidance of an International Consultant and the Chief Agriculture Statistician from the AfDB. The chapter also outlines data collection methods used to compile the SUA and generate FBS results.

## 2.1. Approach

This section outlines the activities undertaken to compile the Zambia FBS, starting with the development of the roadmap to guide the process, mobilizing required funding for the implementation of the roadmap, putting in place a governance structure to implement the process, conducting national training workshops facilitated by the AfDB International Consultant, right through to compiling SUAs, generating, validating and analyzing FBS results.

### 2.1.1. Development of Roadmap

Zambia currently has an existing Cereal/Tubers Balance Sheets system. However, the country has recognized the need to improve and upgrade this system to a more comprehensive Food Balance Sheets (FBS) system, with the aim of covering all food commodities and meeting international standards for such undertakings. AfDB in collaboration with COMESA organized a joint TA mission from 2nd to 13th October 2023. This mission included Mr. Vincent Ngendakumana (Chief Agriculture Statistician at AfDB), Mr. Salou Bande (AfDB/COMESA Consultant) and Ms. Ngawo Banda (Agriculture Statistician, Statistics Unit, COMESA Secretariat).

The mission met with key stakeholders to discuss and agree on the best approach to upgrade to a comprehensive FBS system in Zambia. These consultations culminated into the development of a roadmap to support the process. The objective of the roadmap was to outline a clear series of activities to improve and upgrade the existing CBS compilation system to a comprehensive SUAs and FBS compilation system for Zambia. Specifically, the roadmap was put in place to:

i. Recommend and outline activities to be carried out for FBS compilation;
ii. Define the required governance/ institutional mechanism that would ensure the sustainability of a robust SUA/FBS compilation system for Zambia;
iii. Develop a realistic timetable for the execution of all outlined activities; and
iv. Identify the necessary resources required to ensure a successful implementation of the identified activities.

### 2.1.2. Funding mobilization

To successfully implement the identified activities, AfDB provided the required financial support with augumented support from Chiansi Small holder Outgrower support project totalling US$77,044.

### 2.1.3. Designing of the FBS Compilation Tool

The FBS Compilation Tool has been designed by the AfDB and adapted to the specificities of the country. This Tool is based on the standard/ international guidelines for FBS compilation, developed under the GSARS. Like the FBS guidelines, the Tool does not account for fishery products. In addition, the Tool cannot map Harmonized System (HS) codes to Central Products Classification (CPC) codes. Despite these shortcomings, it is a user-friendly Tool that facilitates the imputation of missing data using models explained in the guidelines and the generation of Food Balance Sheets for a given

year. To address the issues not handled by the Tool, the Technical Working Group performed the following activities:

- Used Microsoft Excel to compile separate fisheries data and generate FBS results
- Mapped HS codes to CPC using Trade Data Mapping Tool and thereafter, uploaded the files to the Tool.

### 2.1.4. Setting up of a Technical Working Group

To facilitate the compilation of comprehensive Food Balance Sheets (FBS) in Zambia, the Cereals/Tubers compilation system has undergone improvement/upgrading. Additionally, the current institutional framework has been updated to include other relevant producers of basic data and key users of FBS data, while adhering to the requirements of international standards and guidelines for the FBS compilation process. Figure 1 shows the Institutional framework for FBS compilation in Zambia. Beginning from the base of the structure, the composition of the FBS compilation is as follows:

- **Thematic Technical Working Groups for FBS (FBS_TTWG)** – responsible for data collection. Each FBS_TTWG is coordinated by a FBS_TTWG Focal Point who consolidates data submitted by their FBS_TTWG. Each FBS_TTWG Focal Point reports to the FBS national Focal Point. The ToRs for the FBS_TTWG are presented in Annex 3, whereas Annex 4 provides the composition of FBS_TTWG.
- **FBS Core Team** – includes a total of five members (two from MoA, one from MFL and two from ZamStats). The FBS national Focal Point is drawn from the MoA to deal with day-to-day FBS work. The FBS Core Team is also responsible for regularly coordinating capacity building initiatives for other institutions involved in the Food Balance Sheets compilation process. The ToRs for the FBS Core Team are presented in Annex 5, and its composition is provided in Annex 6.
- **FBS Technical Working Group (FBS_TWG) –** reports to the National Stocks Monitoring Committee (NSMC) on this subject. The FBS_TWG is responsible for reviewing and validating the technical aspects of the FBS results, including intermediate deliverables such as the FBS preliminary results and related SDGs, as well as the final results. All FBS_TTWG Focal Points, FBS Core Team members, as well as other relevant staff from the MoA, MFL and Zambia Statistics Agency shall be part of this Technical Working Group, based on recommendation by their respective focal points. The FBS_TWG is chaired by the Head of Agricultural Statistics in MoA and co-chaired by his/her equivalent from ZamStats, each reporting to the Permanent Secretary of MoA and ZamStats Statistician General, respectively. In their absence, the FBS_TWG is co-chaired by the FBS Focal Point and his/her alternate from ZamStats. The adoption of FBS results is the responsibility of the Permanent Secretaries of MoA and MFL, and ZamStats SG. The ToRs for the FBS_TWG are presented in Annex 7, and its composition is provided in Annex 8.

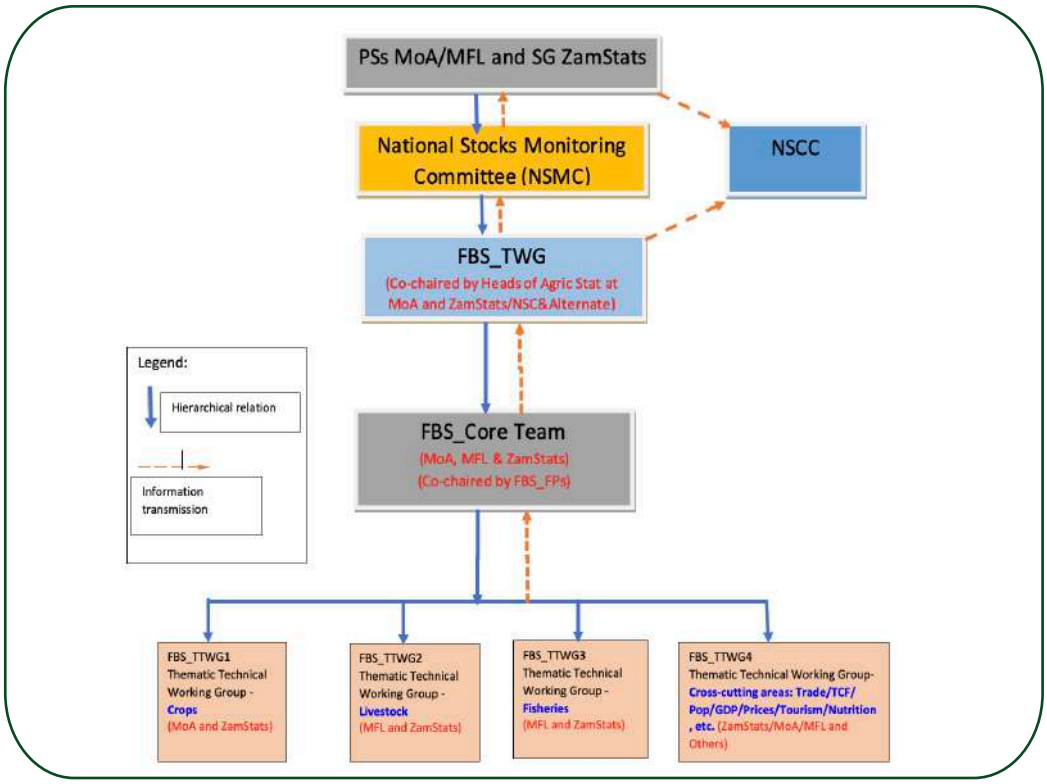


**Figure 1: Institutional/governance structure for FBS compilation system in Zambia**

## 2.1.5. Data Collection

The data collection of SUA/FBS basic data commenced immediately after the roadmap mission conducted by AfDB and COMESA. Each member of the FBS_TWG was tasked to capture data to feed into FBS templates designed to collect SUA basic data for the 2019 – 2023 reference period. The templates were designed to capture data on production (crops and livestock), trade, food for human consumption, feed ratios, seed rates, extraction rates, prices, nutritional values, anthropometric data and relevant other data.

The process demanded documentation of data sources and methodology applied to process the data. To ensure that the process was cohehrent and transparent, ther was need for engangement with relevant key stakeholders.

## 2.1.6. National Training and SUA Compilation Workshop

In March and April 2024, a 13-day national training workshop on FBS compilation was held in Zambia. The main objective of the workshop was to train the FBS_TWG on the methodology for FBS compilation and on the use of the FBS Compilation Tool. The workshop was facilitated by Mr. Salou Bande, an International Consultant from the AfDB, and was attended by the national consultant, as well as FBS_TWG members from MoA, MFL and ZamStats. The training workshop was divided in two parts. The first part included presentations on various topics, such as:

i. an introduction to FBS;
ii. FBS methodological framework; and
iii. FBS components: production, trade, stock changes, food, food processing, tourist food, feed, seed, loss, industrial use, residual and other uses. At the end of each presentation, workshop participants were given exercises to consolidate their understanding of concepts covered.

The second part of the training focused on trade data mapping and processing, Food Loss Index (FLI), Prevalence of Undernourishment, as well as on the use of various tools, including the FBS Compilation Tool, Trade Data Mapping Tool and FBS Formatting Tool. During the training,

participants were able to compile data for all SUA components and generate preliminary results for the FBS. Further, the Food Loss Index (FLI) and the Prevalence of Undernourishment (PoU) indicators were also computed. Participants also learnt how to compile fisheries data outside the system as the tool, in its current format, cannot be used for that purpose.

### 2.1.7. Generation of Preliminary FBS Results

After the national training, the core team, with support from the national consultant and guidance from the international consultant, generated preliminary results in a phased manner beginning with the 2019 – 2020 period and later addressing the 2021 – 2023 reference period. The FBS Compilation Tool is a country specific application (cannot be used to compile FBS for another country) written in R, using 'Shiny' package. The generation of FBS preliminary results was conducted for each of the five years using the FBS Compilation Tool. The standard templates for each SUA components, including other required data such as gross domestic product (GDP), population, elasticity, calorie conversion factors and nutrient factors, extraction rates, were imported into the Tool. Then, the SUAs were balanced, standardized and aggregated, to ensure that supply was always equal to utilization for each FBS year. Once SUA standardization and aggregation was completed, a balanced FBS was generated by converting all commodities into their primary equivalent. Detailed preliminary results of supply and utilization at aggregate level were generated from which all the nine key indicators of interest were derived:

i. food supply per capita per year;
ii. dietary energy supply per capita per day;
iii. daily per capita proteins;
iv. daily per capita fats;
v. supply of vitamins and minerals;
vi. self-sufficiency ratio;
vii. import dependence ratio;
viii. food loss index; and, (ix) prevalence of undernourishment.

### 2.1.8. Validation of Preliminary FBS Results 2019 – 2023

The validation of the preliminary FBS results was conducted at two levels. First, the core team conducted quality checks to ensure that the results were logical and within feasible limits. Second, the FBS_TWG held a validation workshop to ensure that the preliminary results generated were vetted by a wider group beyond the core team that actively participated in generating the results. At both stages, it was agreed that the preliminary results looked feasible and could be taken to the next stage of deeper analysis and interpretation for the FBS report.

## 2.2. Data Sources

This section describes SUA basic data sources used to generate the FBS preliminary results. The main sources of data were official surveys, administrative records and past thematic reports. Data for each thematic group was compiled with a focus on quality. In instances where data was missing, experts provided estimates using related data series and their knowledge of the subject matter. Details of the data compilation process for each FBS component are presented below.

### 2.2.1. Crops sector

Crop production data was mainly obtained from the Crop Forecasting Surveys (CFS) for the period 2010 to 2023. For each primary crop commodity considered, area harvested (hectares), quantity produced (tonnes) and yield (tonnes per hectare) were compiled and entered in the crops SUA basic data file in Excel. Only crops relevant to Zambia were captured in the files. The commodities with data presented in other units were converted into required standard units. For example, quantities captured

in kilograms were converted to tonnes by using the conversion factor of *1 tonne=1000 kilograms*. For area measurements captured in acres, the conversion factor used was *1 hectare=2.471 acres*.

National level production data for fruits and vegetables was only available for three waves of the Rural Livelihoods Surveys (2012, 2015 and 2019) conducted by the Indaba Agricultural Policy Research Institute in collaboration with MoA and ZamStats. To generate FBS results of the period under review (2019 – 2023), production data of fruits and vegetables was compiled as follows:

A. Production data for 2019 was obtained from 2019 RALS.
B. Production data for 2020 – 2023 were estimated using a step-by-step process as outlined below:

a. Estimation of production using the supply and utilization relationship

$$Production + Import - Export = Food + Loss$$
$$\Rightarrow Production = Food + Loss + Export - Import \quad \text{Equation 8}$$

b. In equation 8, export and import are known but food is unknown. Based on a strong assumption that per capita consumption is stable over the years, the following identity was formulated

$$\frac{Food_{2019}}{Population_{2019}} = \frac{Food_{2020}}{Population_{2020}} = \frac{Food_{2021}}{Population_{2021}} = \frac{Food_{2022}}{Population_{2022}} = \frac{Food_{2023}}{Population_{2023}} \quad \text{Equation 9}$$

c. From equation 9, a series of equations were developed which allowed for computation of food in each year

$$Food_{2020} = \frac{Food_{2019} * Population_{2020}}{Population_{2019}} \quad \text{Equation 10}$$

$$Food_{2021} = \frac{Food_{2020} * Population_{2021}}{Population_{2020}} \quad \text{Equation 11}$$

$$Food_{2022} = \frac{Food_{2021} * Population_{2022}}{Population_{2021}} \quad \text{Equation 12}$$

$$Food_{2023} = \frac{Food_{2022} * Population_{2023}}{Population_{2022}} \quad \text{Equation 13}$$

d. Based on the standard loss ratio for fruits and vegetables estimated at 0.1, the loss in each year is estimated as

$$Loss = 0.1 * (production + Import) \quad \text{Equation 14}$$

e. Replacing the loss component in equation 9 by equation 15, production for 2020, for example, becomes

$$Production_{2020} = Food_{2020} + 0.1 * (production_{2020} + Import_{2020}) + Export_{2020} - Import_{2020} \quad \text{Equation 15}$$

f. Collecting like terms, production in 2020 simplifies to the equation

$$\text{Production}_{2020} = \frac{\text{Food}_{2020} - 0.9 * \text{Import}_{2020} + \text{Export}_{2020}}{0.9}$$

Equation 16

g. Replacing the food component in equation 17 by equation 11, production in 2020 was estimated as follows

$$Production_{2020} = \frac{\frac{Food_{2019} * Population_{2020}}{Population_{2019}} - 0.9 * Import_{2020} + Export_{2020}}{0.9}$$

Equation 17

h. The same logic was applied to the remaining years giving the general formula for fruits and vegetables production

$$\text{Production}_{it} = \frac{\frac{\text{Food}_{i(t-1)} * \text{Population}_{it}}{\text{Population}_{i(t-1)}} - 0.9 * \text{Import}_{it} + \text{Export}_{it}}{0.9} \quad \text{Equation 18}$$

where *(production)* $_{it}$ is the quantity of production of fruit/vegetable i in year t *(Food)* $_{i\,(t-1)}$, is the quantity of fruit/vegetable i available for human consumption in year *t-1, Population* $_{it}$ is the population in year t,Population $_{i(t-1)}$ is the population in year t-1, 0.9 is a coefficient derived when accounting for food losses in the supply chain (10% food loss for fruits and vegetables was used in this estimation), *(Import)*$_{it}$ is the quantity of fruit/vegetable i imported in year t, and *(Export)*$_{it}$ is the quantity of fruit/vegetable *i* imported in year *t*.

### 2.2.2. Livestock sector

Data on the number of live animals was obtained from surveys and administrative data sources. For missing years, the FBS_TTWG on livestock used the statistical mean. Proxy numbers for live animal exports were calculated using net weight and average live weight based on the Technical Conversion Factors, for example, 309 kg was used for cattle.

Data on milk and milking animals were sourced from the Dairy Association of Zambia (DAZ) and the Ministry of Fisheries and Livestock. A close analysis of the data revealed that the figures provided by DAZ were too low since they only captured data from members of the association. As a result, Census, Survey and Administrative data were used for the years 2019 to 2023, as they more accurately reflected the national situation. Where data was missing, the TWG applied average values for imputation.

Due to a lack of data on the number of laying chickens, estimates were based on the number of eggs produced annually, assuming an average of 300 eggs per chicken. To compute the production of eggs in metric tonnes, the average weight for an egg was estimated at 52 grams.

### 2.2.3. Import and Export Data

ZamStats compiles the International Merchandise Trade Statistics through the External Trade Unit. Import and export data were sourced from customs data and relevant surveys, including enterprise and individual surveys. The Department of Customs and Excise of the Zambia Revenue Authority (ZRA) was the major source of International Trade Merchandize data. This data was collected through Customs Bills of Entry (CBE), which are completed by both importers and exporters, and in some cases, by Clearing Agents, with verification carried out by Customs Officials. Enterprise Surveys involve obtaining data on key commodities such as copper, cobalt, cut flowers, tobacco and fresh vegetables. These surveys are particularly useful when it is difficult to obtain information directly from ZRA regarding the final destination of exports and their actual realized values at the time of export. Individual surveys focus on small-scale cross-border trade, aiming to capture informal trade around customs offices, which, by nature, is not recorded by customs. Trade data initially coded in Harmonised system (HS) classification was processed and mapped to Central Products Classification (CPC) by the TWG using the Trade Data Mapping Tool (TDMT).

### 2.2.4. Stock Variation

The stock variation data was generated from the CFS data by subtracting the opening stocks of the previous agricultural marketing season from the closing stocks of the current year.

### 2.2.5. Feed

The feed data was computed by multiplying total maize production by feed ratios. The feed ratios were obtained from the Cereals/Tubers Balance Sheets produced annually from the CFS data. The main commodity for feed was maize.

### 2.2.6. Seed

The data on seeds (in tonnes) was computed by multiplying area planted (in hectares) by the seed rates (Kg/ha), using area planted data from the CFS data for the period 2010 to 2023. The seed rates used were based on recommendations by the Seed Control and Certification Institute (SCCI) of Zambia.

### 2.2.7. Loss

Losses were estimated by multiplying production by loss ratios. In the case of Zambia, losses are considered from storage to consumption and range from two to five percent of production. Losses occurring during harvest, transportation from field to homestead, and during shelling and packaging are not included due to difficulties associated with estimating these downstream losses. In the absence of country-level estimates of loss ratios, standard loss ratios for commodities such as fruits and vegetables were used.

### 2.2.8. Tourist Food

This variable is expressed in net terms in the FBS compilation tool. It is calculated by finding the difference between the consumption of incoming tourists and the consumption of residents as tourists in other countries. The input data used for the imputation includes the number of visitors, length of visits, and the historical available of calories in both the home and destination countries. For each commodity, estimates are calculated by first multiplying the number of tourist days by the average amount of that commodity consumed daily, and then subtracting from this value the product of the number of outgoing tourist days and the average amount of that commodity consumed daily. The data sources for tourist food are immigration authorities and national tourism offices. These institutions provide the most detailed information available on visitor arrivals and departures, including data differentiated by country of origin, the numbers of day visitors and overnight visitors, and the average length of stay for overnight visitors.

### 2.2.9. Food Processing

Food processing refers to the quantities of food products that are directed toward a manufacturing process and are then transformed into different edible commodities. Food processing quantities are linked to the production of derived commodities through extraction rates. For Zambia, estimates on food processing of some commodities were calculated by applying the extraction rate to quantities of production of derived commodities, using data from the CFS conducted between 2019 and 2023. For some (e.g., production of refined sugar, beer, etc.) data was obtained from the Industrial Outputs Unit of ZamStats.

### 2.2.10. Food

Food availability, in the FBS setting, refers to quantities of any substance, whether raw, processed or semi-processed (including beverages) that are available for human consumption during a given reference period at the retail level for the country's resident population. It includes any loss or waste at consumer level. Food availability is estimated by modelling the current year's availability based on levels from the previous year, while adjusting for changes in income, population, and overall trends in food availability.

The equation used to estimate food availability in a given year t is

$$Food_t = \frac{Population_t}{Population_{t-1}} * Food_{t-1} * (1 + \phi) \qquad \text{Equation 19}$$

where $Food_t$ is food available in year t, $Population_t$ is the population in year t, $Population_{t-1}$ is the population in the year before year t, $Food_{t-1}$ was the amount of food available in the year before t and $\phi$ is the historical trend in food consumption estimated from a regression on the historical food availability data series.

### 2.2.11. Fisheries Sector

Fish production estimates were sourced from administrative data collected from the provinces. The production figures included all fish species from both aquaculture and capture fisheries. Data on imports and exports were extracted from the ZamStats excel data set and aggregated according to the various types of fish and fish products listed in the FBS template. Most of the marine species recorded as exports, were imported and in transit to the Democratic Republic of Congo (DRC).

# CHAPTER 3: ANALYSIS OF FBS RESULTS

## 3.0 Chapter 3 Overview

In chapter three, the FBS results for Zambia for the review period 2019–2023 are presented and analyzed, starting with the food supply per capita per year (kg) indicator. Next, several nutritional indicators are unpacked and analyzed including dietary energy supply per capita per day, daily protein supply per capita, daily fat supply per capita, and daily supply per capita of six minerals and six vitamins. The FBS results for Zambia on food supply per capita per year of nine selected food products are compared with averages at global level and a neighboring country, Tanzania, to evaluate the country's performance relative to other countries. To assess how Zambia performed in terms of meeting the nutritional needs of its population, the nutritional indicators are compared with recommended dietary allowances available in the literature. To understand how the country fared over the five-year period under review in terms of domestic production and import dependence, the self-sufficiency and import dependence ratios are analyzed and interpreted. Furthermore, the two SDG related indicators—FLI and PoU—are estimated and interpreted to help track the country's performance regarding the achievement of related set SDG targets. The chapter concludes with a validation of the FBS results by comparing them with the FAOSTAT estimates for Zambia.

Results are not only presented at food group level (vegetal and animal products) but have been disaggregated at food product level to give readers a clearer understanding of which products contributed most to a particular indicator. Where such disaggregation is not presented in this chapter, readers are encouraged to review the detailed FBS results presented in Annex 9 and 10.

## 3.1. Food Supply per capita per year

The food supply per capita per year is a measure of the quantity of food available for human consumption per person per year. Measured in kilograms (kg), this indicator is useful in projecting whether supply of different food products can meet demand for food in a population. Table 2 shows the contribution of various vegetal products (plant-based products) in terms of food supply per capita per year (kg). On average, the food supply per capita per year for vegetal products such as cereals, starchy roots, vegetables, and fruits was at 125.4kg, 198.3kg, 22.3kg, and 12kg, respectively. In terms of trends, cereal supply per capita per year marginally increased by 1.2 kg from 2019 to 2020 but a higher increase was observed from 2020 to 2021 when cereal supply per capita increased from 119kg to 129.9kg, representing a 9% increase. On the other hand, per capita supply of starchy roots exhibited a marginal upward trend at the beginning of the reference period, increasing from 218.3kg to 220kg. However, it then reduced for two consecutive years, with the biggest drop observed between 2021 and 2022, when the supply dropped by16%. Although vegetables supply per capita per year showed a downward trend during the review period, the decline was marginal for most of the years, particularly during the period 2020 to 2023. Lastly, fruits supply per capita had a U-shaped trend in that supply reduced from 2019 to 2021 but then increased from 2021 to 2023. The results highlight the trends of food supply for different food groups and demonstrate that food supply per capita was not the same across the 12 groups of vegetal products.

**Table 2: Food supply per capita per year (kg) of groups of vegetal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 117.8 | 119.0 | 129.9 | 129.9 | 130.3 | 125.4 |
| Starchy roots | 218.3 | 220.0 | 201.3 | 168.8 | 182.9 | 198.3 |
| Sugar crops | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Sweeteners | 18.7 | 18.4 | 16.6 | 16.7 | 14.8 | 17.0 |
| Pulses | 3.5 | 3.3 | 2.8 | 3.1 | 3.9 | 3.3 |
| Treenuts | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 |
| Oilcrops | 12.9 | 12.9 | 13.5 | 15.2 | 15.3 | 14.0 |
| Vegetable oils | 7.3 | 7.2 | 8.7 | 7.7 | 9.0 | 8.0 |
| Vegetables | 27.1 | 22.6 | 20.9 | 20.6 | 20.2 | 22.3 |
| Fruits (Excluding Wine) | 13.1 | 12.1 | 11.0 | 11.5 | 12.4 | 12.0 |
| Stimulants | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| Spices | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Alcoholic beverages | 49.1 | 47.0 | 47.3 | 49.2 | 53.4 | 49.2 |

The disaggregated results of selected vegetal products reported in Table 3 indicate that maize and its products had the largest average supply per capita per year, amounting to 105.1 kg. In addition, the supply of maize and its products steadily increased during the reporting period, particularly between 2020 and 2021. Wheat and its products had the second largest average supply per capita per year, at approximately 13.7 kg. Rice and its products averaged about 5.3 kg, with a trend indicating an increase in supply per capita per year. The two cereals considered indigenous to Zambia, sorghum and millet, averaged around 0.5 kg to 0.6 kg per capita per year during the review period. This relatively low supply per capita for sorghum and millet demonstrates the challenges that remain in promoting these indigenous crops as alternatives to maize and its products.

The per capita annual supply of starchy roots was generally dominated by cassava and its products, with an average supply of 185.7 kg per capita per year. The supply of cassava per capita decreased from 2019 to 2022 but thereafter increased from 2022 to 2023. Conversely, the supply of sweet potatoes increased between 2019 and 2021, resulting in an 83% increase in the per capita annual supply. Although there was a reduction in the supply of sweet potatoes per capita per year by 4.6 kg (42.6% reduction) from 2021 to 2022, supply rebounded by 4.7 kg (a 76% increase) from 2022 to 2023. Among the fruits category, the largest supply was in the "fruits, other and products" category, which averaged about 7.8 kg per capita. Although the FBS results for Zambia did not disaggregate the "fruits, other & products" subgroup to maintain uniformity with other countries in the presentation of standard tables generated using the FBS tool, this category was dominated by mangoes and guavas.

**Table 3: Food supply per capita per year (kg) of selected vegetal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Cereals (excl. beer)** | **117.8** | **119.0** | **129.9** | **129.9** | **130.3** | **125.4** |
| Maize and products | 99.7 | 99.8 | 108.8 | 108.8 | 108.6 | 105.1 |
| Wheat and products | 12.7 | 12.7 | 13.7 | 14.7 | 14.7 | 13.7 |
| Rice & Prod (Milled Equivalent) | 4.1 | 4.9 | 6.3 | 5.4 | 6.0 | 5.3 |
| Millet and products | 0.5 | 1.0 | 0.4 | 0.4 | 0.9 | 0.6 |
| Sorghum and products | 0.8 | 0.6 | 0.5 | 0.4 | 0.1 | 0.5 |
| **Starchy roots** | **218.3** | **220.0** | **201.3** | **168.8** | **182.9** | **198.3** |
| Potatoes and products | 4.3 | 5.2 | 5.2 | 3.2 | 3.3 | 4.2 |
| Cassava and products | 208.0 | 207.1 | 185.2 | 159.4 | 168.7 | 185.7 |
| Sweet potatoes | 5.9 | 7.7 | 10.8 | 6.2 | 10.9 | 8.3 |
| **Fruits (Excluding Wine)** | **13.1** | **12.1** | **11.0** | **11.5** | **12.4** | **12.0** |
| Oranges, Tang-Mand & Prod. | 1.9 | 1.2 | 0.8 | 0.9 | 1.1 | 1.2 |
| Lemons, Limes and products | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| Citrus Fruit nes & prod | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Bananas | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Apples and products | 0.4 | 0.5 | 0.6 | 0.6 | 0.9 | 0.6 |
| Pineapples and products | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 |
| Grapes and products (excl wine) | 0.5 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Fruits, Other & Products | 8.2 | 8.2 | 7.3 | 7.7 | 7.9 | 7.8 |

Table 4 highlights the contribution of six animal products to food supply per capita per year in kilograms. On average, the annual food supply per capita for meat, milk, eggs and fish was 8.7 kg, 5 kg, 0.8 kg, and 8.5 kg, respectively. The meat supply per capita per year declined between 2019 and 2020 but trended upwards from 2020 to 2023. The milk supply per capita exhibited a U-shaped trend, decreasing from 2019 to 2021 and then increasing from 2021 to 2023. The supply of eggs per capita decreased from 1 kg in 2019 to 0.6 kg in 2023. The supply of fish per capita per year increased from 2019 to 2022 but marginally dropped from 2022 to 2023.

**Table 4: Food supply per capita per year (kg) of animal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Meat** | 8.5 | 8.0 | 8.1 | 9.5 | 9.6 | 8.7 |
| **Offals** | 0.8 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |
| **Animal fats** | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| **Milk - Excluding Butter** | 5.9 | 4.6 | 3.0 | 4.9 | 6.4 | 5.0 |
| **Eggs** | 1.0 | 0.9 | 0.9 | 0.6 | 0.6 | 0.8 |
| **Fish & sea food** | 7.9 | 8.0 | 8.7 | 9.0 | 8.9 | 8.5 |

To conclude this section, results for the average food supply per capita per year for Zambia for nine selected vegetal and animal groups were compared with global estimates and a neighboring country that has undertaken a similar comprehensive FBS process. In this report comparison was made with Tanzania which undertook this process for the period 2013 - 2017. Table 5 shows that the average food supply per capita per year in Zambia during the review period was lower than global estimates for all the selected food products, except for starchy roots for which the difference in the supply per capita per year was 198.3kg. When compared to results from Tanzania, Zambia's food supply per capita per year was only higher for starchy roots and fish & seafood. For the other seven products, Tanzania had a higher food supply per capita per year. These results suggest that Zambia has a lot to do to enhance food supply per capita per year if the country hopes to keep pace with other countries in the region and the rest of the world.

**Table 5: Comparison of Zambia's food supply per capita per year for selected food groups with average supply of a neighboring country and globally**

| Food products | Average food supply per capita per year for Zambia (kg) | Average global food supply per capita per year (kg) a | Average food supply per capita per year for Tanzania (kg)b |
|---|---|---|---|
| Cereals | 125.4 | 152 | 134 |
| Starchy roots | 198.3 | 64 | 99 |
| Fruits | 12 | 95 | 69 |
| Vegetables | 22.3 | 114 | 50 |
| Pulses | 3.3 | 15 | 27 |
| Meat | 8.7 | 43 | 13 |
| Fish & seafood | 8.5 | 18 | 7 |
| Milk & its products | 5 | 120 | 35 |
| Eggs | 0.8 | 10 | 1 |

## 3.2 Dietary Energy Supply per capita per day

Figure 2 shows the Dietary Energy Supply (DES) per capita per day in kilocalories for Zambia from 2019 to 2023. The trend for DES per capita per day showed fluctuations, ranging from a low of 2,310 kcal (recorded in 2022) to a high of 2,384 kcal (in 2021).

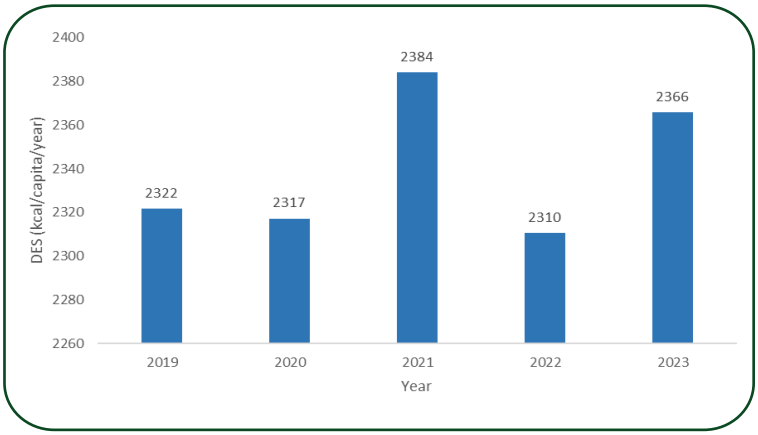


**Figure 2: Dietary Energy Supply per Capita per Day (Kcal)**

Table 6 presents the percentage contributions of vegetal and animal products to the total daily per capita DES from 2019 to 2023. Vegetal products were the largest contributor to total DES accounting for approximaately 96% of DES while animal products contributed the other 4%.

**Table 6: Contribution of Vegetal and Animal products to total DES (Kcal/cap/day)**

| Year | Vegetal products (Kcal) | Animal products (Kcal) |
|---|---|---|
| 2019 | 2,223 (95.7%) | 99 (4.3%) |
| 2020 | 2,228 (96.2%) | 89 (3.8%) |
| 2021 | 2,302 (96.5%) | 82 (3.5%) |
| 2022 | 2,215 (95.9%) | 95 (4.1%) |
| 2023 | 2,258 (95.4%) | 108 (4.6%) |

### 3.2.1. DES per capita per day from vegetal products

Table 7 shows the contributions of various groups of vegetal products to daily per capita DES for the period from 2019 to 2023. Cereals accounted for 49% of the total vegetal products, providing an average of 1,094 Kcal per capita per day. The second highest group was starchy roots, which accounted for an average share of 23% (equivalent to an average of 512 Kcal per capita per day), followed by vegetable oils, contributing an average share of 8.6%.

**Table 7: Contribution of Groups of Vegetal Products to DES per capita per day (Kcal)**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| **Cereals (excl. beer)** | 1030 | 1040 | 1133 | 1132 | 1136 | 1094 | 48.7 |
| **Starchy roots** | 564 | 568 | 521 | 436 | 473 | 512 | 22.8 |
| **Sugar & Sweeteners** | 173 | 177 | 163 | 163 | 125 | 160 | 7.1 |
| **Pulses** | 31 | 30 | 26 | 28 | 34 | 30 | 1.3 |
| **Treenuts** | 1 | 1 | 1 | 1 | 1 | 1 | 0.0 |
| **Oilcrops** | 147 | 145 | 152 | 169 | 169 | 156 | 7.0 |
| **Vegetable oils** | 178 | 174 | 211 | 187 | 217 | 193 | 8.6 |
| **Vegetables** | 21 | 19 | 18 | 18 | 18 | 19 | 0.8 |
| **Fruits (Excluding Wine)** | 21 | 19 | 20 | 21 | 23 | 21 | 0.9 |
| **Spices** | 1 | 1 | 1 | 1 | 1 | 1 | 0.0 |
| **Alcoholic beverages** | 54 | 52 | 53 | 56 | 59 | 55 | 2.4 |
| **Miscellaneous** | 2 | 2 | 2 | 3 | 2 | 2 | 0.1 |
| **Total** | **2223** | **2228** | **2302** | **2215** | **2258** | **2245** | **100.0** |

A closer look at the “cereals” food group reveals that maize accounted for the largest share (86.7%) within the group (Figure 3), indicating that it was the main contributor to the daily DES per capita for the cereals group. Wheat and rice contributed 9.4% and 3%, respectively, to the DES per capita per day for cereals group. Sorghum and millet collectively accounted for 0.9% of the calories from the cereals group.

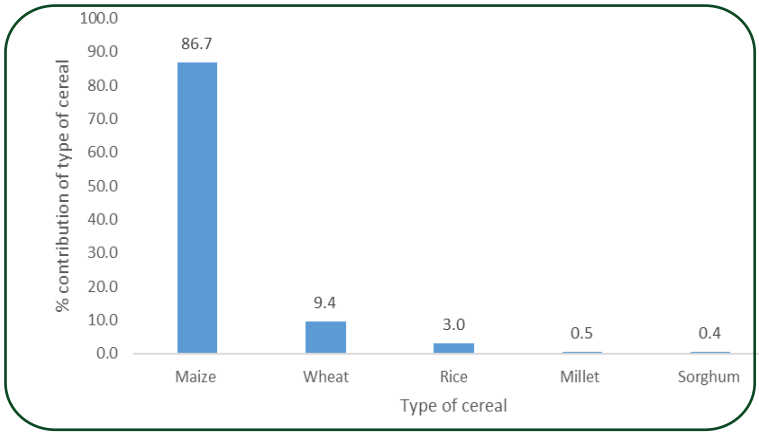


**Figure 3: Contribution (%) of types of cereals to the total calories of Cereals group**

For starchy roots, cassava contributed the most calories to this food group during the period under review, accounting for 93%, followed by sweet potatoes at 5.1% (Figure 3). Potatoes and products accounted for the lowest share of calories in the starchy group, at 1.6%.

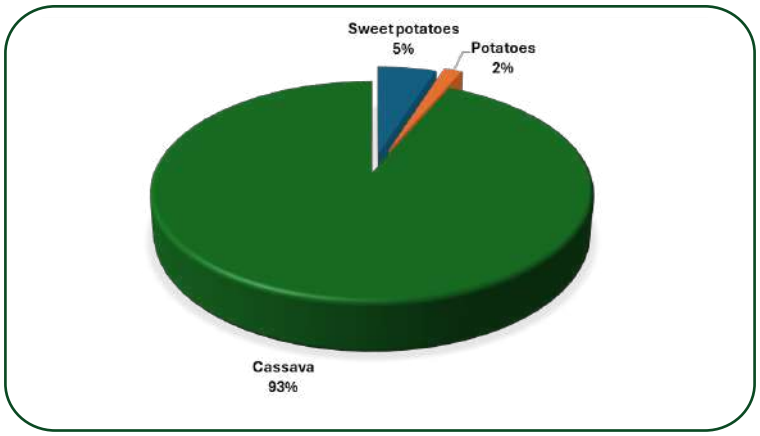


**Figure 4: Contribution (%) of types of starchy roots commodities to the total calories of Starchy roots**

Figure 5 shows that soya bean oil was the dominant commodity in the vegetable oils group, contributing an average share of 55% to the DES per capita per day from vegetable oils. The second main commodity was palm oil with an average share of 27% to the DES per capita per day from the vegetable oils group, followed by sunflower seed oil at 10%.

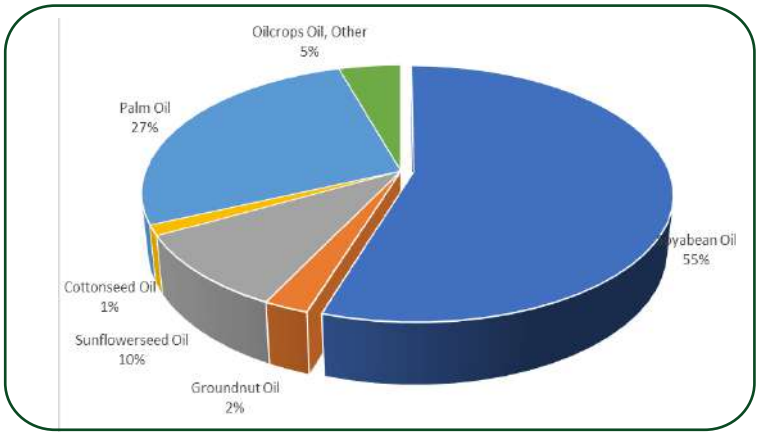


**Figure 5: Contribution (%) of Vegetable oil commodities to the total calories of Vegetable oils**

### 3.2.2. DES per capita per day from animal products

With regards to DES per capita per day from animal products,

Figure 6 shows that during the period under review, the "meat" group accounted for the highest share at 53%, followed by milk at 17.5% and fish at 17%.

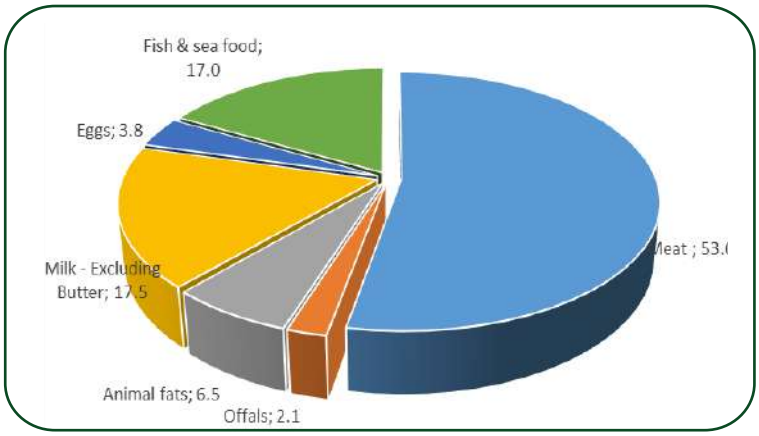


**Figure 6: Contribution (%) of types of animal products to the total calories (kcal) of Animal products Group**

From the meats group, Figure 7 shows that pig meat was the main contributor to the DES per capita per day, accounting for 35.5%, followed by bovine meat at 32.2% and poultry meat in third place at 25.5%.

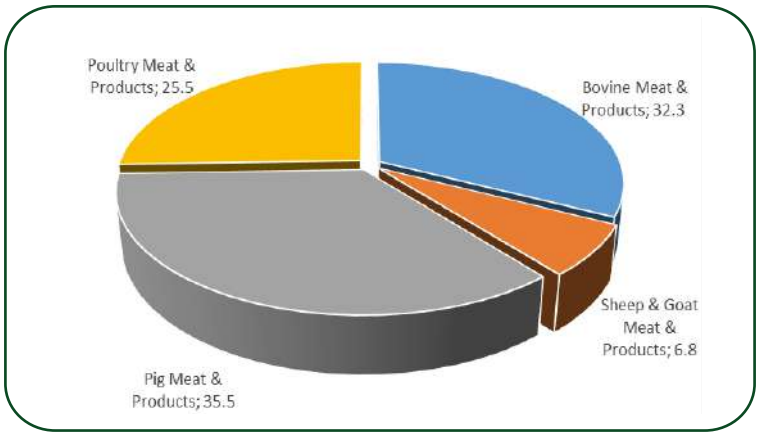


**Figure 7: Contribution (%) of the different types of meat to DES per Capita per day (Kcal) of the meat products Group**

To conclude this section on DES, the average DES was compared with recommendations for different stage groups. The average DES per capita per day was 2,340 kcal and this was sufficient to meet requirements by life stage as recommended by the World Health Organization. The recommended DES per capita per day is 550-700 kcal for infants (0-6 months), 700-900 kcal for Infants (7-12 months), 1,000-1,400 kcal for children (1-3 years), 1,400-1,600 kcal for children (4-6 years), 2,000-2,800 kcal for male adolescents, 1,800-2,200 kcal for female adolescents, and 1,800-2,200 kcal for moderately active adults (WHO, 2004).

## 3.3. Daily per capita proteins

Daily per capita protein measures the total amount of protein in food available for consumption per person per day. It is measured in grams and varies based on factors such as age, gender, weight and activity level. Results show that the overall daily per capita protein supply in Zambia averaged about 49.4g during the period from 2019 to 2023 (Table 8). The results reveal a steady increase in the daily per capita protein supply from 47.7 grams in 2019 to 52.3 grams in 2023. Table 78 also shows a steady increase in daily per capita protein supply from both vegetal and animal products during the review period.

**Table 8: Daily Per Capita Proteins supply by food productl)**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Daily per capita Proteins (grams)** | **47.7** | **47.8** | **48.6** | **50.7** | **52.3** | **49.4** |
| From Vegetal products | 41.4 | 41.4 | 43.0 | 43.0 | 43.7 | 42.5 |
| From Animal products | 6.4 | 6.4 | 5.6 | 7.7 | 8.7 | 6.9 |

According to results presented in Figure 8, vegetal products were the main source of proteins in Zambia, accounting for 86.0% of the daily per capita protein supply, whereas animal products accounted for only 14.0%.

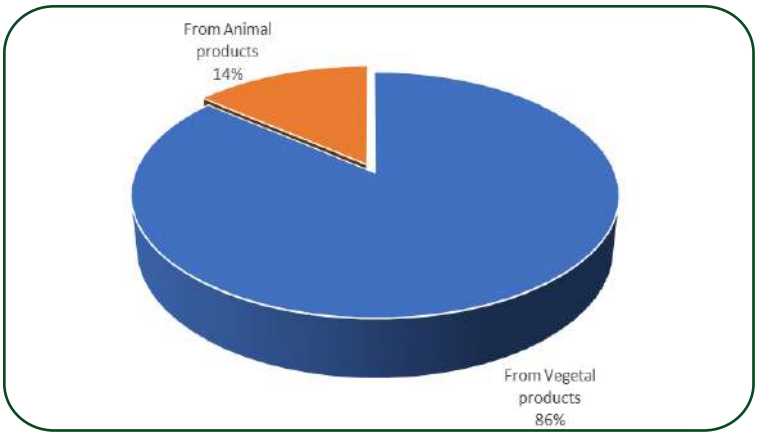


**Figure 8: Contribution (%) of main food groups to total daily per capita proteins supply**

Table 9 depicts the various types of vegetal products and their respective contributions to Zambia's total daily per capita proteins supply of the group of vegetal products. Cereals contributed an average of 63.2% of total daily per capita proteins supply, equivalent to 26.8g, followed by oilcrops, which contributed 18.8% (8g). Starchy roots contributed 10.8% (4.6g), while pulses and vegetables contributed about 4.8% and 2.4%, respectively.

**Table 9: Contribution (%) of Group of Vegetal products to total daily per capita proteins (grams) supply of vegetal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 26.3 | 26.3 | 27.0 | 27.0 | 27.6 | 26.8 | 63.2 |
| Starchy roots | 5.0 | 5.0 | 5.0 | 4.0 | 4.0 | 4.6 | 10.8 |
| Pulses | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 4.8 |
| Oilcrops | 7.0 | 7.0 | 8.0 | 9.0 | 9.0 | 8.0 | 18.8 |
| Vegetables | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 2.4 |
| **Total** | **41.4** | **41.4** | **43.0** | **43.0** | **43.7** | **42.5** | **100.0** |

Table 10 shows that maize and its products (84.7%) were the main contributors to daily per capita protein supply in the cereals group, followed by wheat and its products at 11.5%. In the pulses group, dry beans (70.2%) were the main contributors while other pulses accounted for 29.8%.

**Table 10: Contribution of Cereals and Pulses products to daily per capita proteins (grams) of their respective Groups**

| Cereals and Pulses | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| **Cereals** | | | | | | | |
| Wheat and products | 3.2 | 3.2 | 3.0 | 3.0 | 3.1 | 3.1 | 11.5 |
| Maize and products | 22.1 | 22.1 | 23.0 | 23.0 | 23.5 | 22.7 | 84.7 |
| Rice & Prod (Milled Equivalent) | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 3.8 |
| **Total** | **26.3** | **26.3** | **27.0** | **27.0** | **27.6** | **26.8** | **100.0** |
| **Pulses** | | | | | | | |
| Beans, Dry & Products | 2.1 | 1.1 | 1.0 | 1.0 | 2.0 | 1.4 | 70.2 |
| Peas, Dry & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 0.0 | 1.1 | 1.0 | 1.0 | 0.0 | 0.6 | 29.8 |
| **Total** | **2.1** | **2.1** | **2.0** | **2.0** | **2.0** | **2.0** | **100.0** |

Among the oil crops, soya beans (37.5%) was the main contributor, whereas groundnuts, rape seed and mustard seed contributed 30% and 32.5%, respectively (Table 11). Cassava was the only crop from the starchy roots category which contributed to the daily per capita proteins supply during the period under review.

**Table 11: Contribution of types of oil crops to daily per capita proteins (grams)**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| Soyabeans & Products | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 37.5 |
| Groundnuts (Shelled Eq) | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.4 | 30.0 |
| Sunflower seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustardseed | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 2.6 | 32.5 |
| **Total** | **7.0** | **7.0** | **8.0** | **9.0** | **9.0** | **8.0** | **100.0** |

Table 12 shows the contribution of animal products to daily per capita protein supply. Meat (51.9%), fish and sea food (36.6%), and milk (11.5%) were the only animal products that contributed to the protein supply during the period under review.

**Table 12: Contribution of Animal products to daily per capita proteins (grams) of the animal products Group**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| Meat | 3.0 | 3.0 | 3.0 | 4.0 | 5.0 | 3.6 | 51.9 |
| Offals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Milk - Excluding Butter | 1.0 | 1.0 | 0.0 | 1.0 | 1.0 | 0.8 | 11.5 |
| Eggs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish & sea food | 2.4 | 2.4 | 2.6 | 2.7 | 2.7 | 2.5 | 36.6 |
| **Total** | **6.4** | **6.4** | **5.6** | **7.7** | **8.7** | **6.9** | **100** |

In terms of recommended daily protein intake, a sedentary adult weighing 70kg needs about 56g of protein per day, while an active adult with a similar weight need about 80g – 120 g (FAO/WHO/UNU, 2007). The FBS results indicate that, for both sedentary and active persons, the average daily protein supply per capita was lower than the recommended levels.

## 3.4. Daily per capita fats

The daily per capita fat intake refers to the average amount of fat consumed per person per day. Like daily per capita protein, it is usually measured in grams (g) and varies based on age, gender, weight and activity level. Results from the Zambia FBS for the review period (2019 – 2023) suggest that daily per capita fat supply steadily increased, as shown in Table 13. The daily per capita supply increased by 19% from 48 grams in 2019 to 56.8 grams in 2023. The increase can be attributed largely to vegetal products, whose per capita fat supply increased by eight grams, while the supply from animal products increased by only one gram.

**Table 13: Daily Per Capita Fats supply (grams)**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Daily per capita Fats** | **48.0** | **46.3** | **54.6** | **52.9** | **56.8** | **51.7** |
| Vegetal products | 42.5 | 40.8 | 49.0 | 46.2 | 50.2 | 45.7 |
| Animal products | 5.5 | 5.6 | 5.6 | 6.6 | 6.6 | 6.0 |

Figure 9 shows that vegetal products were the major source of fats, accounting for 88.4%, while animal products contributed the remaining 11.6%.

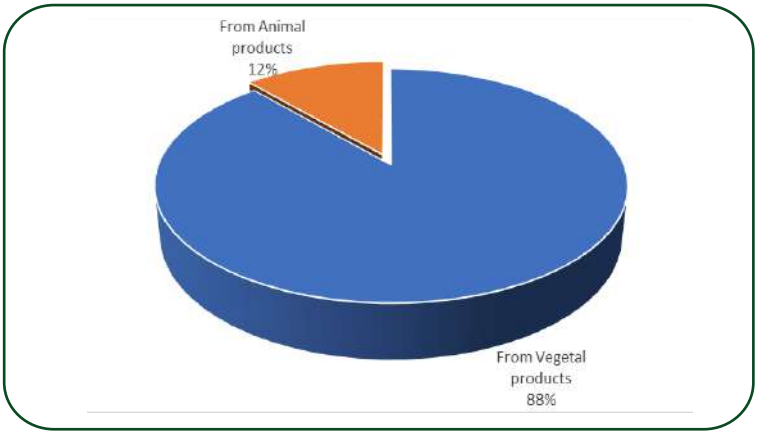


**Figure 9: Contribution (%) of main food groups to the total daily per capita fats**

When vegetal products were disaggregated into four sub-groups to estimate their contribution to the vegetal products' daily per capita fat supply (Figure 10), most of the contribution came from vegetable oils at 48%, followed by oil crops at 26%, cereals at 24%, and starchy roots, which contributed the least at 2%.

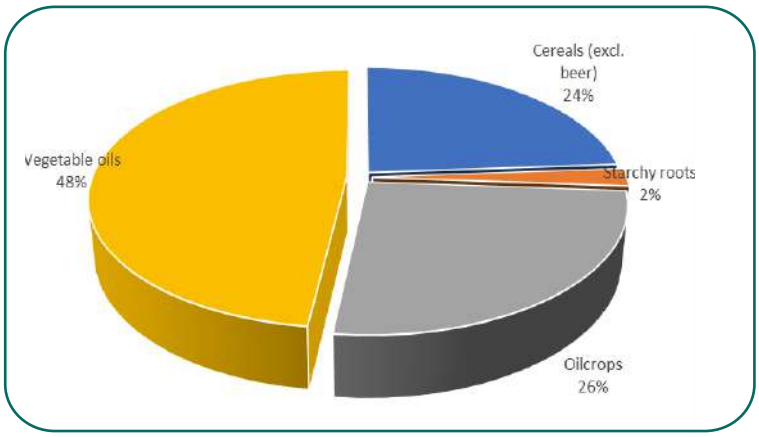


**Figure 10: Contribution (%) of sub-groups of vegetal products to daily per capita fats of the vegetal products group**

The contribution of various animal products was also analyzed and is reported in Table 14. Results show that meat contributed the most (56.8%) to daily per capita fats sourced from animal products, whereas animal fats and milk each contributed 16.7%. In contrast, the contribution of fish and sea food was quite low at 9.7%, averaging less than one gram per year throughout the period under review.

**Table 14: Contribution of types of animal products to daily per capita fats (grams) of the animal products group**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | % |
|---|---|---|---|---|---|---|---|
| Meat | 3.0 | 3.0 | 3.0 | 4.0 | 4.0 | 3.4 | 56.8 |
| Offals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Animal fats | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 16.7 |
| Milk - Excluding Butter | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 16.7 |
| Eggs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish & sea food | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 9.7 |
| **Total** | **5.5** | **5.6** | **5.6** | **6.6** | **6.6** | **6** | **100** |

According to WHO (2018), recommended daily fat intake rates in grams per capita per day can be disaggregated as follows: (i) 44-77 grams per day for adults with a sedentary lifestyle; (ii) 55-90 grams per day for adults with a moderately active lifestyle; and (iii) 66-100 grams per day for adults with an active lifestyle. The average daily per capita fat supply in Zambia of 51.7 g falls within the recommended daily fats intake rate for adults with a sedentary lifestyle but is below that for adults with a moderate or active lifestyle.

## 3.5. Supply of Minerals and Vitamins per capita per day

The importance of minerals and vitamins in the diet cannot be overemphasized. A diet rich in minerals and vitamins helps maintain optimal health, prevents deficiencies, and reduces risk of chronic diseases such as anemia and cardiovascular disease. Therefore, this comprehensive FBS compilation includes an estimation of the supply of minerals and vitamins from all vegetal and animal products recorded in

the Zambia FBS for the review period from 2019 to 2023. Estimates for supply of minerals and vitamins per capita per day were generated and analyzed.

### 3.5.1. Supply of minerals per capita per day

In this section, the results for the per capita daily supply of minerals in Zambia during the review period are presented and analyzed. The six minerals for which conversion factors were available are Calcium, Iron, Magnesium, Phosphorus, Potassium and Zinc.

#### *3.5.1.1. Supply of calcium per capita per day*

Calcium is important for maintaining strong bones and teeth. An adequate supply of calcium in the diet is essential for optimal health, preventing deficiencies, and reducing the risk of chronic diseases such as hypertension and colon cancer. The supply of calcium per capita per day is measured in grams (g) or milligrams (mg). The FBS results presented in this report measured calcium in mg.

The average daily supply of calcium per capita was about 324.4 mg for the entire review period (Table 15). The results also indicate that daily calcium supply steadily reduced from 341.2 mg in 2019 to 295.5 mg in 2022 but increased to 328.4 mg in 2023. Furthermore, the supply of calcium per capita per day from vegetal products was, on average, approximately eight times higher than that from animal products during the reporting period.

**Table 15: Supply of calcium per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 297.0 | 306.0 | 297.3 | 262.3 | 284.7 | 289.4 | 89.2 |
| Animal products | 44.2 | 32.8 | 20.8 | 33.2 | 43.8 | 34.9 | 10.8 |
| **Grand total** | **341.2** | **338.8** | **318.1** | **295.5** | **328.4** | **324.4** | **100.0** |

The results in Table 16 show that the vegetal food products providing the most calcium were starchy roots (64.5%), followed by cereals (15%), vegetables (10.2%), and oilcrops (8.3%). The other vegetal products collectively supplied only 3% of calcium from vegetal products.

**Table 16: Supply of calcium per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 39.9 | 43.1 | 43.1 | 43.4 | 45.9 | 43.1 | 15.0 |
| Starchy roots | 197.4 | 202.3 | 194.4 | 156.3 | 176.7 | 185.4 | 64.5 |
| Sugar & Sweeteners | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.3 |
| Pulses | 0.5 | 1.5 | 1.6 | 1.3 | 0.7 | 1.1 | 0.4 |
| Oilcrops | 22.8 | 22.7 | 22.9 | 25.3 | 25.5 | 23.8 | 8.3 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 29.7 | 29.5 | 29.2 | 29.0 | 28.9 | 29.3 | 10.2 |
| Fruits (Excluding Wine) | 3.6 | 3.3 | 3.3 | 3.7 | 3.8 | 3.5 | 1.2 |
| Stimulants | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **295.1** | **303.6** | **295.6** | **260.1** | **282.4** | **287.4** | **100.0** |

The supply of calcium per capita per day from animal food products (Table 17) mainly came from milk, which accounted for 88.6%. Meat and eggs collectively provided just over 10% of the daily calcium per capita, while offals and animal fats contributed only 0.6% and 0.1%, respectively, to the calcium supply.

**Table 17: Supply of calcium per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 2.4 | 2.2 | 2.2 | 2.8 | 2.9 | 2.5 | 7.1 |
| Offals | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.6 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Milk - Excluding Butter | 40.0 | 29.0 | 17.0 | 29.2 | 39.7 | 31.0 | 88.6 |
| Eggs | 1.5 | 1.4 | 1.4 | 0.9 | 0.9 | 1.2 | 3.5 |
| **Total** | **44.2** | **32.8** | **20.8** | **33.2** | **43.8** | **34.9** | **100.0** |

The recommended calcium intake rates in milligrams per capita per day vary depending on the life stage: (i) infants (0-6 months), 200-260 mg/day; (ii) infants (7-12 months), 260-300 mg/day; (iii) children (1-3 years), 700 mg/day; (iv) children (4-8 years), 1,000 mg/day; (v) adolescents (9-18 years), 1,300 mg/day; (vi) adults (19-50 years), 1,000 mg/day; adults (51 years and older), 1,200 mg/day; pregnant women, 1,000-1,400 mg/day; and breastfeeding women, 1,000-1,300 mg/day (Institute of Medicine, 1997). The average daily supply per capita of calcium in Zambia during the review period, as reported in Table 15, was 324.4 mg/day and this was only sufficient for infants. For the rest of the population at different life stages, the daily supply per capita of calcium was more than two to three times lower than the recommended daily intake.

### *3.5.1.2. Supply of iron per capita per day*

Iron is an essential nutrient, and its supply is important for various functions such as maintaining healthy blood cells, oxygen transport, energy production, and providing immunity, among other roles. The supply of iron per capita per day is measured in milligrams (mg). The FBS results presented in this report also measured iron in mg.

Table 18 displays the daily per capita supply of iron from the two main groups of food products: vegetal and animal products. During the review period, the average supply of iron per capita per day was 12.7mg. The results show that the daily iron supply per capita did not fluctuate significantly for both vegetal and animal products. On average, the supply of iron per capita per day from vegetal products was approximately 24 times greater than that from animal products during the reporting period.

**Table 18: Supply of iron per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 12.3 | 12.4 | 12.4 | 11.8 | 12.0 | 12.2 | 95.82 |
| Animal products | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.5 | 4.18 |
| **Grand total** | **12.9** | **12.9** | **12.9** | **12.3** | **12.5** | **12.7** | **100.00** |

When the results were disaggregated by food products within the vegetal food group (Table 19), cereals emerged as the main source of iron supply per capita per day, accounting for 46.1%. Starchy roots also made a significant contribution to iron supply from vegetal foods, providing about 36.8%. Other vegetal food products that made a meaningful contribution to daily iron supply per capita included vegetables (7.5%) and oilcrops (7.3%).

**Table 19: Supply of iron per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 5.3 | 5.3 | 5.8 | 5.8 | 5.8 | 5.6 | 46.1 |
| Starchy roots | 5.0 | 5.0 | 4.6 | 3.8 | 4.0 | 4.5 | 36.8 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Pulses | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.6 |
| Oilcrops | 0.8 | 0.8 | 0.8 | 0.9 | 1.0 | 0.9 | 7.3 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Vegetables | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 7.5 |
| Fruits (Excluding Wine) | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 1.2 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **12.3** | **12.4** | **12.4** | **11.8** | **11.9** | **12.1** | **100.0** |

The supply of iron per capita per day from animal food products (Table 200) mainly came from meat, which accounted for 59.7%. Offals and eggs correspondingly provided 21.4% and 14.4% of iron, while milk and animal fats together contributed about 4.5%.

**Table 20: Supply of iron per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 59.7 |
| Offals | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 21.4 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Milk - Excluding Butter | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 |
| Eggs | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 14.4 |
| **Total** | **0.5** | **0.5** | **0.5** | **0.6** | **0.6** | **0.5** | **100.0** |

According to the Institute of Medicine (2001), the recommended iron intake also varies by life stage: infants (0.27 to 11mg), children (7 to 10mg), male adolescents (11mg) and male adults (8mg), female adolescents (15mg) and adult women (18mg). The average supply per capita of iron per day (12.7mg) based on the FBS results for Zambia was sufficient to meet the requirements for infants, infants, children, male adolescents and male adults but not for female adolescents or adult women. These results are consistent with the Zambia Demographic Health Survey report of 2018 which reports that anemia, associated with iron deficiency, remains a major concern among women of reproductive age in Zambia, with 31.5% of women aged 15 to 49 years affected.

### *3.5.1.3. Supply of magnesium per capita per day*

There are several bodily functions that are optimized when magnesium is available in the diets in the right quantities. Some of these include muscle function and relaxation, nerve function and transmission of nerve impulses, bone health and density and blood sugar control. A deficiency of magnesium can therefore lead to health complications such as fatigue and weakness, poor sleep quality, cardiovascular disease and diabetes. The supply of magnesium per capita per day is measured in grams (g) or milligrams (mg). The FBS results presented in this report measured magnesium in mg.

Table 21 indicates that the supply of magnesium per capita per day averaged around 362.1mg over the entire review period from the two main food groups. The results also show that the daily magnesium supply did not vary significantly from the average daily supply per capita over the five years. The vegetal food group contributed the most magnesium (98.3%) during the reporting period.

**Table 21: Supply of magnesium per capita per day (milligrams) by main food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 353.2 | 354.4 | 357.7 | 352.2 | 362.9 | 356.1 | 98.3 |
| Animal products | 6.5 | 5.5 | 5.1 | 6.3 | 6.9 | 6.0 | 1.7 |
| **Grand total** | **359.7** | **359.9** | **362.8** | **358.5** | **369.8** | **362.1** | **100.0** |

Table 22 shows that the vegetal food products supplying the most magnesium were cereals (56.9%), followed by starchy roots (25.6%), and oilcrops (11.5%). Other vegetal products collectively supplied only 6% of the magnesium from vegetal products.

**Table 22: Supply of magnesium per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 190.9 | 191.9 | 207.5 | 208.4 | 209.2 | 201.6 | 56.9 |
| Starchy roots | 100.2 | 101.2 | 92.7 | 77.4 | 82.7 | 90.8 | 25.6 |
| Sugar & Sweeteners | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.1 |
| Pulses | 14.3 | 13.3 | 11.1 | 12.0 | 16.3 | 13.4 | 3.8 |
| Oilcrops | 37.1 | 37.6 | 37.6 | 45.4 | 45.8 | 40.7 | 11.5 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 6.3 | 5.9 | 5.2 | 4.8 | 4.6 | 5.4 | 1.5 |
| Fruits (Excluding Wine) | 1.9 | 1.8 | 1.3 | 1.3 | 1.4 | 1.6 | 0.4 |
| Stimulants | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.1 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **351.5** | **352.5** | **356.2** | **350.0** | **360.7** | **354.2** | **100.0** |

The supply of magnesium per capita per day from animal food products (Table 23) mainly came from meat (66.4%) and milk (24.8%). Offals, eggs and animal fats contributed about 4.3%, 4.2% and 0.3% respectively to the daily per capita supply of magnesium.

**Table 23: Supply of magnesium per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 3.9 | 3.6 | 3.6 | 4.4 | 4.5 | 4.0 | 66.4 |
| Offals | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 4.3 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Milk - Excluding Butter | 2.0 | 1.3 | 0.9 | 1.4 | 1.9 | 1.5 | 24.8 |
| Eggs | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 4.2 |
| **Total** | **6.5** | **5.5** | **5.1** | **6.3** | **6.9** | **6.0** | **100.0** |

The recommended individual daily intake of magnesium varies by age and gender but generally ranges between 300 – 400mg per day (Institute of Medicine, 1997). The FBS results suggest that the daily magnesium requirements in Zambia were met during the review period based on the average supply per capita per day of 362.1mg.

### *3.5.1.4. Supply of phosphorus per capita per day*

Phosphorus is an essential micronutrient, and its supply is important for various functions including bone health, energy production, DNA synthesis, cell membrane structure, kidney function, heart health, protein synthesis and neurofunction. In this report, the daily supply of phosphorus in Zambia during the review period was analyzed on a per capita basis to assess whether the supply met the recommended requirements.

According to the results in Table 24, the average supply of phosphorus per capita per day was 848.6 mg. The data indicate that the daily average phosphorus supply per capita decreased by 6 mg, from 839.2 mg in 2019 to 833 mg in 2020, but subsequently increased steadily, reaching the highest supply level of 875 mg in 2023. Like other minerals, the daily phosphorus supply mainly came from vegetal food products (93.3%)

**Table 24: Supply of phosphorus per capita per day (milligrams) by main type food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 777.5 | 780.4 | 797.8 | 790.4 | 811.6 | 791.5 | 93.3 |
| Animal products | 61.8 | 52.6 | 49.1 | 58.6 | 63.3 | 57.1 | 6.7 |
| **Grand total** | **839.2** | **833.0** | **846.9** | **849.0** | **875.0** | **848.6** | **100.0** |

The disaggregated results by food products within the vegetal food group (Table 25), show that cereals were the main source of phosphorus supply per capita per day (61.7%) during the review period. The other key contributors to the vegetal daily phosphorus supply were starchy roots (20.8%) and oilcrops (11.4%).

**Table 25: Supply of phosphorus per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 460.9 | 464.0 | 504.2 | 505.9 | 506.8 | 488.4 | 61.7 |
| Starchy roots | 181.1 | 183.3 | 168.3 | 140.0 | 149.7 | 164.5 | 20.8 |
| Sugar & Sweeteners | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Pulses | 32.2 | 29.9 | 24.6 | 26.6 | 36.6 | 30.0 | 3.8 |
| Oilcrops | 82.3 | 83.0 | 83.6 | 99.6 | 100.5 | 89.8 | 11.4 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 13.2 | 12.3 | 10.9 | 10.0 | 9.5 | 11.2 | 1.4 |
| Fruits (Excluding Wine) | 2.4 | 2.2 | 1.6 | 1.7 | 1.7 | 1.9 | 0.2 |
| Stimulants | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcoholic beverages | 4.5 | 4.5 | 3.8 | 5.5 | 5.6 | 4.8 | 0.6 |
| **Total** | **777.0** | **779.7** | **797.4** | **789.8** | **811.0** | **791.0** | **100.0** |

The supply of phosphorus per capita per day from animal food products (Table 26) mainly came from meat (61.1%) and milk (24.9%). Eggs, offals and animal fats contributed about 7%, 6.6% and 0.3% respectively to the daily supply of phosphorus per capita.

**Table 26: Supply of phosphorus per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 34.1 | 31.6 | 32.1 | 38.2 | 38.6 | 34.9 | 61.1 |
| Offals | 3.6 | 3.6 | 3.8 | 3.9 | 3.9 | 3.8 | 6.6 |
| Animal fats | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 |
| Milk - Excluding Butter | 18.8 | 12.7 | 8.5 | 13.3 | 17.7 | 14.2 | 24.9 |
| Eggs | 5.0 | 4.6 | 4.6 | 3.0 | 2.9 | 4.0 | 7.0 |
| **Total** | **61.8** | **52.6** | **49.2** | **58.6** | **63.3** | **57.1** | **100.0** |

The recommended phosphorus intake rates in milligrams per capita per day vary depending on the life stage: (i) infants (0-6 months), 100-140 mg/day; (ii) infants (7-12 months), 275-300 mg/day; (iii) children (1-3 years), 460-500 mg/day; (iv) children (4-8 years), 500-640 mg/day; (v) adolescents (9-18 years), 1,250 mg/day; (vi) adults (19-50 years), 1,000 mg/day; adults (51 years and older), 1,250 mg/day; pregnant women, 1,000-1,400 mg/day; and breastfeeding women, 1,200-1,400 mg/day (Institute of Medicine, 1997). Based on the results in Table 24, the average supply of phosphorus per capita per day of 848.6 mg was sufficient for infants and children but not for adolescents and adults.

### *3.5.1.5. Supply of potassium per capita per day*

Potassium plays an important role in supporting several functions, such as maintaining fluid balance and blood pressure, regulating heart function and rhythm, and facilitating muscle contractions and relaxation. The supply of potassium is measured per capita per day in milligrams (mg). The FBS results presented in this report also measured potassium in mg.

Table 27 shows the daily per capita supply of potassium for both main food product groups (vegetal and animal products). During the review period, the average daily supply of potassium per

capita was 1,919.6 mg. The results indicate that the daily per capita potassium supply declined from 1,977.7 mg in 2019 to 1,811.5 mg in 2022, representing an 8% reduction. However, there was a subsequent increase of 6% in the daily potassium supply per capita from 2022 to 2023. The supply of potassium per capita per day from vegetal products was, on average, approximately 22 times higher than that from animal products during the reporting period.

**Table 27: Supply of potassium per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 1889.4 | 1899.0 | 1853.1 | 1727.0 | 1820.6 | 1837.8 | 95.7 |
| Animal products | 88.3 | 75.0 | 69.7 | 84.4 | 91.4 | 81.8 | 4.3 |
| **Grand total** | **1977.7** | **1974.0** | **1922.8** | **1811.5** | **1911.9** | **1919.6** | **100.0** |

Starchy roots, cereals and oilcrops were the main sources of daily supply of potassium per capita in the vegetal food products category, collectively accounting for 87.7% (Table 28). Other notable sources were pulses (6.3%) and vegetables (4.6%).

**Table 28: Supply of potassium per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 581.4 | 584.3 | 632.5 | 635.7 | 637.7 | 614.3 | 33.6 |
| Starchy roots | 837.1 | 861.0 | 805.8 | 653.6 | 710.1 | 773.5 | 42.3 |
| Sugar & Sweeteners | 1.3 | 1.3 | 1.3 | 1.3 | 1.1 | 1.3 | 0.1 |
| Pulses | 122.9 | 113.3 | 93.9 | 101.8 | 140.0 | 114.4 | 6.3 |
| Oilcrops | 206.3 | 204.4 | 209.9 | 229.8 | 230.6 | 216.2 | 11.8 |
| Vegetable oils | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Vegetables | 102.9 | 94.8 | 81.7 | 73.1 | 68.9 | 84.3 | 4.6 |
| Fruits (Excluding Wine) | 26.9 | 25.4 | 17.2 | 17.5 | 18.2 | 21.1 | 1.2 |
| Stimulants | 1.4 | 3.5 | 2.9 | 2.8 | 2.6 | 2.6 | 0.1 |
| Spices | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 |
| **Total** | **1880.4** | **1888.2** | **1845.5** | **1715.9** | **1809.5** | **1827.9** | **100.0** |

In the category of animal food products, the main sources of daily potassium supply (Table 28) were meat (67.5%) and milk (23.8%), while offals, eggs and animal fats contributed only 8.7% collectively.

**Table 29: Supply of potassium per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 54.4 | 50.3 | 51.0 | 59.8 | 60.5 | 55.2 | 67.5 |
| Offals | 4.0 | 3.9 | 4.2 | 4.3 | 4.3 | 4.1 | 5.1 |
| Animal fats | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Milk - Excluding Butter | 26.3 | 17.4 | 11.2 | 17.9 | 24.3 | 19.4 | 23.8 |
| Eggs | 3.3 | 3.0 | 3.0 | 2.0 | 1.9 | 2.6 | 3.2 |
| **Total** | **88.3** | **75.0** | **69.7** | **84.4** | **91.4** | **81.8** | **100.0** |

The recommended dietary allowances for potassium by life stage are: (i) infants (0-6 months), 400-700 mg/day; (ii) infants (7-12 months), 700-1,000 mg/day; (iii) children (1-3 years), 3,000-3,800 mg/day; (iv) children (4-8 years), 3,800 mg/day; (v) adolescents (9-18 years), 3,800 mg/day; (vi) adults (19-50 years), 2,800-3,400 mg/day; adults (51 years and older), 2,800-3,400 mg/day; pregnant women, 4,700 mg/day; and breastfeeding women, 5,100 mg/day (Institute of Medicine, 2005). As previously mentioned, the average daily potassium supply per capita in Zambia was estimated to be 1,919.6 mg, which was only sufficient to meet recommended dietary allowances for infants and not the other life stage groups. This entails that the period from 2019 to 2023 was characterized by deficiencies in daily potassium supply per capita.

### *3.5.1.6. Supply of Zinc per capita per day*

Like other mineral micronutrients, zinc plays a critical role in several bodily functions, making it a vital component of a healthy diet. Some of the functions supported by zinc include immune system support, wound healing, hormone regulation, digestive health, skin health and reproductive health. The supply of zinc per capita per day is measured in grams (g) or milligrams (mg). The FBS results presented in this report measured zinc in mg.

As shown in Table 30, the average supply of zinc per capita per day was about 6.4 mg for the entire review period from the two main food groups. The results also indicate that the daily zinc supply exhibited a modest upward trend from the base year (2019) to the last year in the series (2023). Like other minerals mentioned above, the vegetal food group provided much of the zinc (90.6%) during the reporting period.

**Table 30: Supply of zinc per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 5.7 | 5.7 | 5.9 | 5.9 | 5.9 | 5.8 | 90.6 |
| Animal products | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 9.4 |
| **Grand total** | **6.3** | **6.3** | **6.5** | **6.5** | **6.6** | **6.4** | **100.0** |

Cereals, starchy roots and oil crops were the main sources of daily zinc supply per capita in the vegetal food products category, collectively accounting for 97.2% (Table 31). The other seven vegetal products contributed a paltry 2.8% to daily supply of zinc per capita from vegetal products.

**Table 31: Supply of zinc per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 3.6 | 3.6 | 3.9 | 3.9 | 4.0 | 3.8 | 65.4 |
| Starchy roots | 1.3 | 1.3 | 1.2 | 1.0 | 1.0 | 1.2 | 19.8 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Pulses | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.9 |
| Oilcrops | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.7 | 12.0 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.4 |
| Fruits (Excluding Wine) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **5.6** | **5.7** | **5.9** | **5.9** | **5.9** | **5.8** | **100.0** |

For animal food products, the main source of daily zinc supply (Table 32) was meat (78.9%). The other four (4) animal food products collectively contributed about 21.1%.

**Table 32: Supply of zinc per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 78.9 |
| Offals | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Milk - Excluding Butter | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 9.9 |
| Eggs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 |
| **Total** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **100.0** |

The recommended dietary allowances for zinc by life stage are: (i) infants (0-6 months), 2 mg/day; (ii) infants (7-12 months), 3 mg/day; (iii) children (1-3 years), 3 mg/day; (iv) children (4-8 years), 5 mg/day; (v) children (9-13 years), 8 mg/day; (vi) adolescent boys (14-18 years), 11 mg/day; (vii) adolescent girls (14-18 years), 9 mg/day; vii) adult men, 11 mg/day; ix) adult women, 8 mg/day; pregnant women, 11-12 mg/day; and breastfeeding women, 12-13 mg/day (Institute of Medicine, 2001). The average daily supply of zinc, as reported in Table 30, was adequate for infants and children less than eight years. However, the zinc daily intake requirements for children above nine years, adolescents and adults were not met.

## 3.5.2. Supply of vitamins per capita per day

The results for the per capita daily supply of vitamins in Zambia during the review period are presented and analyzed in section 3.5.2. The six vitamins analyzed are Riboflavin, Thiamin, Vitamin A, Vitamin C, Vitamin PP, and Folate (Vitamin B).

### *3.5.2.1. Supply of Riboflavin per capita per day*

Riboflavin, also known as Vitamin B-2, is essential for various bodily functions and provides numerous health benefits such as energy production, vision health, immune

system support, cardiovascular health, skin, hair and mucous membrane health. The supply of Riboflavin per capita per day is measured in milligrams (mg). The FBS results presented in this report measure the daily supply of Riboflavin per capita in mg.

Table 33 shows the per capita daily supply of Riboflavin from the two main groups of food products (vegetal and animal products). The average daily supply of Riboflavin per capita was 0.6 mg during the period under review. The results show that the daily Riboflavin supply per capita remains almost constant from 2019 to 2023. Vegetal products were the main source of Riboflavin, contributing around five times the amount from animal products.

**Table 33: Supply of riboflavin per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 85.9 |
| Animal products | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 14.1 |
| **Grand total** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **100.0** |

Disaggregated by food products within the vegetal food group (Table 34), the results show that cereals were the main source of Riboflavin supply per capita per day (47.2%) during the review period. Other key contributors to the daily Riboflavin supply were starchy roots (23.7%), vegetables (12.8%) and oilcrops (8.1%). The remaining six vegetal products contributed only about 8% of the riboflavin supply per capita per day.

**Table 34: Supply of riboflavin per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 47.2 |
| Starchy roots | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 23.7 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| Oilcrops | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.1 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 12.8 |
| Fruits (Excluding Wine) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **0.5** | **0.5** | **0.5** | **0.5** | **0.5** | **0.5** | **100.0** |

For animal food products, the three main sources of daily riboflavin supply (Table 35) were milk (44.3%), meat (33.8%) and offals 12.6%. The other two animal products (animal fats and eggs) contributed less than 10% to riboflavin supply per capita per day.

**Table 35: Supply of riboflavin per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 33.8 |
| Offals | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 12.6 |
| Animal fats | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.2 |
| Milk - Excluding Butter | 0.05 | 0.03 | 0.02 | 0.03 | 0.05 | 0.04 | 44.3 |
| Eggs | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 9.1 |
| **Total** | **0.10** | **0.07** | **0.07** | **0.09** | **0.10** | **0.08** | **100.0** |

The recommended dietary allowances for Riboflavin by life stage are: (i) infants (0-6 months), 0.3-0.4 mg/day; (ii) infants (7-12 months), 0.4-0.5 mg/day; (iii) children (1-3 years), 0.5 mg/day; (iv) children (4-8 years), 0.6 mg/day; (v) adolescents (9-18 years), 0.9-1.3 mg/day; (vi) adults (men), 1.3 mg/day; adults (women), 1.1 mg/day; pregnant women, 1.4 mg/day; and breastfeeding women, 1.6 mg/day (Institute of Medicine, 1998). Based on the FBS results for Zambia (2019 – 2023), the average daily supply of riboflavin was only sufficient for infants and children and not adolescents and all the adult life stage categories.

### *3.5.2.2. Supply of Thiamin per capita per day*

Thiamin, also referred to as Vitamin B1, plays a crucial role in various bodily functions, including energy production, nerve function, heart health muscle function, brain function, eye health, immune system support, fetal development and overall health. The supply of Thiamin per capita per day is measured in milligrams (mg). The FBS results presented in this report measured the daily supply of Thiamin per capita in mg.

Table 36 shows the supply of Thiamin per capita per day from the two main groups of food products (vegetal and animal products). The average supply of Thiamin per capita per day was 1.3 mg during the period under review. The results show that the daily Thiamin supply per capita did not deviate significantly from the average during this period. Vegetal products were the main source of supply of Thiamin, contributing about 95.3% to the daily supply per capita.

**Table 36: Supply of thiamin per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 95.3 |
| Animal products | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 4.7 |
| **Grand total** | **1.2** | **1.2** | **1.3** | **1.3** | **1.3** | **1.3** | **100.0** |

Cereals, starchy roots and oil crops were the main sources of daily supply of thiamin per capita in the vegetal food products category, collectively accounting for 92.2% (Table 37). The remaining 7.8% of daily supply of Thiamin per capita from vegetal products was contributed by the other seven vegetal products.

**Table 37: Supply of thiamin per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 58.7 |
| Starchy roots | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 18.7 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 |
| Oilcrops | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 14.8 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| Fruits (Excluding Wine) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **1.2** | **1.2** | **1.2** | **1.2** | **1.2** | **1.2** | **100.0** |

For animal food products, the main sources of daily Thiamin supply (Table 38) were meat (78.6%) and milk (11.9%). Collectively, offals, eggs and animal fats contributed about 9.5% to daily thiamin per capita per day.

**Table 38: Supply of thiamin per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.050 | 0.045 | 0.044 | 0.047 | 0.047 | 0.046 | 78.6 |
| Offals | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 0.003 | 4.6 |
| Animal fats | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.3 |
| Milk - Excluding Butter | 0.009 | 0.007 | 0.004 | 0.007 | 0.009 | 0.007 | 11.9 |
| Eggs | 0.003 | 0.003 | 0.003 | 0.002 | 0.002 | 0.003 | 4.6 |
| **Total** | **0.066** | **0.057** | **0.054** | **0.058** | **0.061** | **0.059** | **100.0** |

According to the Institute of Medicine (1998), the thiamin recommended dietary allowances in milligrams per capita per day by life stages are as follows: (i) infants (0-6 months), 0.2 mg/day; (ii) infants (7-12 months), 0.3 mg/day; (iii) children (1-3 years), 0.5 mg/day; (iv) children (4-8 years), 0.6 mg/day; (v) adolescents (9-18 years), 0.9-1.2 mg/day; (vi) adults (men), 1.2 mg/day; adults (women), 1.1 mg/day; pregnant women, 1.4 mg/day; and breastfeeding women, 1.4 mg/day. The FBS results indicate that Thiamin supply per capita during the review period was, on average, within the recommended requirements for all life stage groups except for pregnant and breast-feeding women.

### *3.5.2.3. Supply of vitamin A RAE per capita per day*

Ensuring that vitamin A is adequately supplied in diets is essential to prevention of vision-related complications, impaired immunity, skin problems and an increased risk of infections. The supply of vitamin A per capita per day is measured in micrograms (mcg). The FBS results presented in this report also measured vitamin A per capita in mcg.

Table 39 shows the supply of vitamin A per capita per day from the two main groups of food products (vegetal and animal products). During the review period, the average supply of vitamin

A per capita per day was 134.5 mcg. The results indicate that daily supply of vitamin A per capita steadily increased, except for the period between 2021 to 2022, when it dropped from 144 mcg to 124 mcg. On average, the supply of vitamin A per capita per day from vegetal products was approximately 1.5 times greater than that from animal products during the reporting period.

**Table 39: Supply of vitamin A RAE per capita per day (micrograms) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 72.2 | 79.0 | 91.5 | 68.6 | 89.8 | 80.2 | 59.6 |
| Animal products | 55.1 | 51.8 | 52.8 | 55.2 | 56.6 | 54.3 | 40.4 |
| **Grand total** | **127.3** | **130.8** | **144.3** | **123.7** | **146.4** | **134.5** | **100.0** |

Disaggregated by food products within the vegetal food group (Table 40), the results show that starchy roots were the main source of Vitamin A supply per capita per day (49.7%) during the review period. Other key contributors to the daily Vitamin A supply from the vegetal sources were vegetables (26.5%) and cereals (19.4%). The remaining seven vegetal products contributed only about 4.4% to the per capita daily supply of Vitamin A.

**Table 40: Supply of vitamin A RAE per capita per day (micrograms) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 14.7 | 14.7 | 16.0 | 16.0 | 16.0 | 15.5 | 19.4 |
| Starchy roots | 29.0 | 36.9 | 51.2 | 29.8 | 51.4 | 39.7 | 49.7 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Oilcrops | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Vegetable oils | 2.1 | 2.3 | 2.3 | 2.2 | 2.6 | 2.3 | 2.9 |
| Vegetables | 24.4 | 22.9 | 20.7 | 19.2 | 18.5 | 21.1 | 26.5 |
| Fruits (Excluding Wine) | 1.4 | 1.4 | 0.6 | 0.7 | 0.7 | 0.9 | 1.2 |
| Stimulants | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **71.8** | **78.5** | **91.1** | **68.2** | **89.4** | **79.8** | **100.0** |

The supply of Vitamin A per capita per day from animal food products (Table 41) mainly came from offals (68.3%), milk (16.9%) and eggs (10.6%). Meat and animal fats collectively contributed a paltry 4.1% to the daily supply of Vitamin A per capita.

**Table 41: Supply of Vitamin A RAE per capita per day (micrograms) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 2.2 | 2.1 | 2.1 | 3.0 | 3.1 | 2.5 | 3.9 |
| Offals | 41.7 | 41.6 | 44.2 | 44.9 | 44.8 | 43.4 | 68.3 |
| Animal fats | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |
| Milk - Excluding Butter | 14.1 | 10.2 | 5.7 | 10.0 | 13.6 | 10.7 | 16.9 |
| Eggs | 8.4 | 7.7 | 7.6 | 5.1 | 4.9 | 6.8 | 10.6 |
| **Total** | **66.7** | **61.7** | **59.8** | **63.2** | **66.6** | **63.6** | **100.0** |

The recommended daily intake of vitamin A in retinol activity equivalents (RAE) varies by age and gender. For all life stage groups, the recommended dietary allowance for vitamin A RAE ranges between 400 mcg and 900 mcg (Institute of Medicine, 2001). The average daily supply of vitamin A RAE per capita in Zambia, based on the FBS results, was estimated to be 134.5 mcg. This was below the recommended daily intake for vitamin A RAE at all life stages.

### *3.5.2.4. Supply of vitamin C per capita per day*

Vitamin C is essential for various bodily functions and offers numerous health benefits, such as boosting the immune system, reducing cancer risks, promoting wound healing, supporting cardiovascular health, enhancing cognitive function, lowering the risk of anemia, maintaining eye health, managing stress and contributing to overall well-being. The supply of vitamin C per capita per day is measured in milligrams (mg). The FBS results presented in this report measure daily supply of vitamin C per capita in mg.

Table 42 shows the supply of vitamin C per capita per day from main groups of food products (vegetal and animal products). The average supply of vitamin C per capita per day was 104.5 mg during the period under review. The results show that daily vitamin C supply per capita decreased by 12% from 2019 to 2022 but increased by 6% from 2022 to 2023. Vegetal products were the main source of supply of vitamin C, contributing about 99.6% while the contribution of animal products was negligible.

**Table 42: Supply of Vitamin C per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 110.3 | 109.0 | 101.5 | 97.1 | 102.9 | 104.2 | 99.6 |
| Animal products | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| **Grand total** | **110.7** | **109.3** | **101.8** | **97.5** | **103.3** | **104.5** | **100.0** |

Vegetables were the main source of daily per capita Vitamin C supply within the vegetal food products category, contributing about 71.2% (Table 43). Other significant contributors to per capita Vitamin C supply included starchy roots (15.6%), pulses (7.2%) and fruits (5.9%).

**Table 43: Supply of Vitamin C per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Starchy roots | 16.3 | 17.7 | 18.0 | 13.3 | 15.8 | 16.2 | 15.6 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses | 8.8 | 6.9 | 5.4 | 6.4 | 10.0 | 7.5 | 7.2 |
| Oilcrops | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 75.7 | 75.0 | 73.9 | 73.1 | 72.7 | 74.1 | 71.2 |
| Fruits (Excluding Wine) | 9.3 | 9.2 | 4.1 | 4.1 | 4.2 | 6.2 | 5.9 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **110.2** | **108.9** | **101.5** | **97.0** | **102.8** | **104.1** | **100.0** |

For animal food products, the only sources of daily Vitamin C supply per capita (Table 44) were offals (46.1%), milk (36.9%) and meat (17.0%).

**Table 44: Supply of Vitamin C per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 17.0 |
| Offals | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 46.1 |
| Animal fats | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Milk - Excluding Butter | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 36.9 |
| Eggs | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **0.4** | **0.3** | **0.3** | **0.4** | **0.4** | **0.4** | **100.0** |

The daily intake of vitamin C varies by age, gender and other factors, but the recommended dietary allowances across different life stage groups range between 60 mg and 90 mg per day (Institute of Medicine, 2000). In accordance with the FBS results reported in Table 42, the average daily supply of vitamin C per capita in Zambia exceeded the required daily intake.

### *3.5.2.5. Supply of Vitamin PP per capita per day*

Vitamin PP, also known as Niacin or Vitamin B3, helps support bodily functions such as energy production, skin health, cholesterol reduction, brain function, digestive health, immune system support, cancer prevention and overall health.

The supply of Vitamin PP per capita per day is measured in milligrams (mg). The FBS results presented in this report measured daily supply of Vitamin PP per capita in mg.

Table 45 shows the supply of Vitamin PP per capita per day from two main groups of food products (vegetal and animal products). The average supply of Vitamin PP per capita per day was 10.6 mg during the period under review. The results show that the daily supply of Vitamin PP per capita reduced by 7.3% from the base year to 2020 but increased steadily from 2020 to 2023. Vegetal products were the main source of Vitamin PP, contributing about 92.5% to the daily supply per capita.

**Table 45: Supply of Vitamin PP per capita per day (milligrams) by main type of food groups**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 8.2 | 7.6 | 10.1 | 11.3 | 11.8 | 9.8 | 92.5 |
| Animal products | 0.7 | 0.6 | 0.6 | 1.0 | 1.1 | 0.8 | 7.5 |
| **Grand total** | **8.9** | **8.2** | **10.7** | **12.3** | **12.9** | **10.6** | **100.0** |

According to results in Table 46, the main source of Vitamin PP in the vegetal products category was fruits, which contributed about 95.5%. The remaining 4.5% came from starchy roots (1.6%), oilcrops (1.7%) and vegetables (1.1%). The other six vegetal products did not contribute to the per capita daily supply of vitamin PP.

**Table 46: Supply of Vitamin PP per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Starchy roots | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 1.6 |
| Sugar & Sweeteners | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.7 |
| Vegetable oils | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Vegetables | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.1 |
| Fruits (Excluding Wine) | 7.7 | 7.1 | 9.6 | 10.9 | 11.4 | 9.4 | 95.5 |
| Stimulants | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total** | **8.2** | **7.6** | **10.1** | **11.3** | **11.8** | **9.8** | **100.0** |

For animal food products, the only sources of daily per capita Vitamin PP supply (Table 47) were meat (97.2%), milk (2.5%) and eggs (0.3%). The other three animal products (offals, animal fats and eggs) were not sources of vitamin PP.

**Table 47: Supply of Vitamin PP per capita per day (milligrams) by type of animal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Meat | 0.66 | 0.61 | 0.59 | 0.98 | 1.03 | 0.77 | 97.2 |
| Offals | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Animal fats | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.0 |
| Milk - Excluding Butter | 0.03 | 0.02 | 0.01 | 0.02 | 0.03 | 0.02 | 2.5 |
| Eggs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.3 |
| **Total** | **0.69** | **0.63** | **0.60** | **1.00** | **1.06** | **0.80** | **100.0** |

The Institute of Medicine (1998) recommended dietary allowances in milligrams per capita per day by life stage are as follows: (i) infants (0-6 months), 2 mg/day; (ii) infants (7-12 months), 4 mg/day; (iii) children (1-3 years), 6 mg/day; (iv) children (4-8 years), 8 mg/day; (v) adolescents (9-18 years), 12-16 mg/day; (vi) adults (men), 16 mg/day; adults (women), 14 mg/day; pregnant women, 18 mg/day; and breastfeeding women, 17 mg/day. The FBS results (Table 46) indicate that the average Vitamin PP supply per capita (10.6 mg) during the review period was sufficient for infants and children but inadequate for adolescents and adults.

### *3.5.2.6. Supply of Folate (Vit B-9) per capita per day*

Folate, also known as Vitamin B9, helps support bodily functions such as fetal development, red blood cells production, brain function, heart health, immune system support, cancer prevention, digestive health and overall well-being. The supply of Folate per capita per day is measured in milligrams (mg). The FBS results presented in this report measure the daily supply of Folate per capita in mg.

Table 48 shows the daily per capita supply of Folate from two main groups of food products (vegetal and animal products). During the period under review, the average daily per capita supply of Folate was 6.9 mg. The results show that the daily per capita supply of Folate reduced by 28% from the base year to 2023. The vegetal food group was the sole source of daily per capita supply of Folate and this was mainly sourced from vegetables.

**Table 48: Supply of Folate (Vit B-9) per capita per day (milligrams) by type of vegetal food products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average | Percent |
|---|---|---|---|---|---|---|---|
| Vegetal products | 8.2 | 7.6 | 6.8 | 6.2 | 5.9 | 6.9 | 100.0 |
| Animal products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Grand total** | **8.2** | **7.6** | **6.8** | **6.2** | **5.9** | **6.9** | **100.0** |

The recommended dietary allowances for folate by life stage are as follows: (i) infants, 0.065-0.08 mg/day; (ii) children, 0.12-0.3 mg/day; (iii) adolescents, 0.4 mg/day; (iv) adults, 0.4 mg/day; (v) pregnant women, 0.6 mg/day; and (vi) breastfeeding women, 0.5 mg/day (Institute of Medicine, 1998). The FBS results indicate that the average folate supply per capita per day during the review period was more than adequate for the Zambian population at all life stages.

## 3.6. Self-Sufficiency Ratio (SSR)

The Self-Sufficiency Ratio (SSR) compares a country's agricultural production to its domestic utilization. It measures a country's ability, expressed as a percentage, to meet current food demand and other related food requirements through its own production. An SSR of 100% or higher indicates that production is sufficient for domestic utilization.

Figure 11 shows the Self-Sufficiency Ratios for vegetal and animal products. For vegetal products, results indicate that the minimum SSR for Zambia was 101.7% (in 2019 and 2020) and the maximum SSR was 120.6% (in 2021). Results for animal products show that the minimum SSR for Zambia was 90.5% (2022) and the maximum SSR was 99.9% in 2023. This suggests that, during this period, production of vegetal products was adequate for domestic utilization, while production of animal products was slightly insufficient.

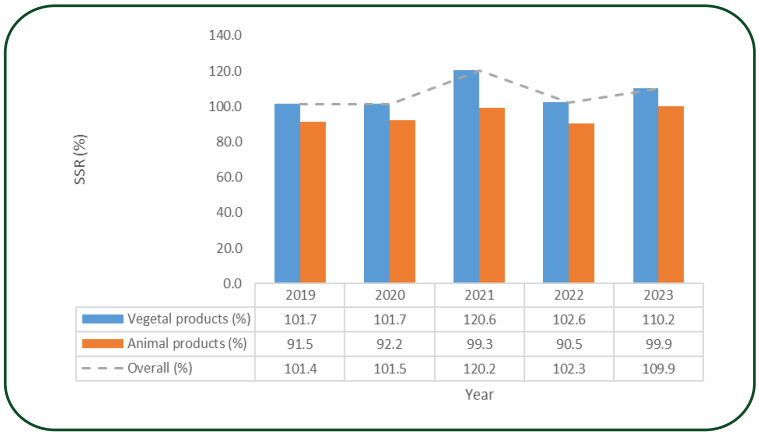


**Figure 11: Self-sufficiency ratio for Vegetal and Animal products**

Table 49 indicates that vegetal products such as cereals, starchy roots, sugar & sweetners, pulses and oil crops had an average SSR of over 100% during the review period. This shows that these vegetal products were sufficiently supplied during this period. However, Zambia did not achieve self-sufficiency in vegetable oils, vegetables, fruits, and alcoholic beverages, as their average SSRs were below 100% with vegetable oils recording an average SSR of less than 50%.

**Table 49: Self Sufficiency Ratio (%) for selected Groups of Vegetal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Cereals (excl. beer)** | 84.5 | 136.2 | 132.5 | 97.1 | 111.4 | 112.3 |
| **Starchy roots** | 99.6 | 99.4 | 99.1 | 100.3 | 114.3 | 102.5 |
| **Sugar & Sweeteners** | 294.5 | 292.6 | 262.8 | 207.8 | 186.4 | 248.8 |
| **Pulses** | 115.8 | 115.9 | 140.3 | 120.3 | 112.8 | 121.0 |
| **Oilcrops** | 102.9 | 103.8 | 108.6 | 104.7 | 111.1 | 106.2 |
| **Vegetable oils** | 33.5 | 38.1 | 40.0 | 53.2 | 62.2 | 45.4 |
| **Vegetables** | 80.1 | 94.0 | 101.6 | 103.7 | 106.7 | 97.2 |
| **Fruits (Excluding Wine)** | 76.3 | 85.7 | 95.3 | 93.9 | 80.1 | 86.3 |
| **Alcoholic beverages** | 93.6 | 91.3 | 92.8 | 93.5 | 92.2 | 92.7 |

Figure 12 shows that rice and its products recorded the lowest average SSR at 47.7% among cereals, while maize, millet and sorghum, along with their products, recorded the highest average SSRs of 119.1%, 112.1% and 103.3%, respectively. Maize and its products consistently maintained an SSR above 100% for all the years except for 2019, when an SSR of 87.8 % was recorded. In contrast, wheat, barley, rice and their products recorded SSRs below 100 % every year from 2019 to 2023.


**Figure 12: Self-sufficiency ratio for selected cereal products**

Table 50 displays the self-sufficiency ratios for the animal products group. Zambia achieved average SSRs exceeding 100% for milk (112.6%), eggs (108.7%) and offals (100.1%). However, meat, fish and sea food, and animal fats consistently recorded SSRs below 100% each year, indicating that Zambia was not fully self-sufficient in these animal products during the period under review.

**Table 50: Self Sufficiency Ratio (%) for selected Animal products Group**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Meat** | 92.5 | 91.6 | 92.9 | 76.3 | 75.4 | 85.7 |
| **Offals** | 100.0 | 99.6 | 99.7 | 100.1 | 101.1 | 100.1 |
| **Animal fats** | 91.2 | 89.5 | 93.0 | 87.6 | 84.9 | 89.2 |
| **Milk - Excluding Butter** | 82.0 | 97.0 | 161.1 | 102.7 | 120.5 | 112.6 |
| **Eggs** | 106.1 | 104.7 | 105.4 | 114.0 | 113.3 | 108.7 |
| **Fish & sea food** | 94.0 | 97.7 | 99.2 | 99.9 | 99.9 | 98.2 |

## 3.7. Import Dependency Ratio (IDR)

The IDR compares the magnitude of a country's imports to its domestic utilization. In this section, results on IDR are presented and interpreted. Figure 13 shows Zambia's Import Dependency Ratio (IDR) for vegetal and animal products from 2019 to 2023. The minimum IDR for vegetal products was 5.5% recorded in 2022 and 2023, and the maximum was 8.3% in 2021. For animal products, the minimum and maximum IDR were 10.8% (2021) and 33.8% (2022) respectively. Overall, the IDR during the reporting period when animal and vegetal products were combined ranged between 6 and 8.4%. The main interpretation of the IDR results is that the country had a low dependency rating as far as imports were concerned, except for animal products in 2022 when the IDR was 33.8% (moderate dependency rating).

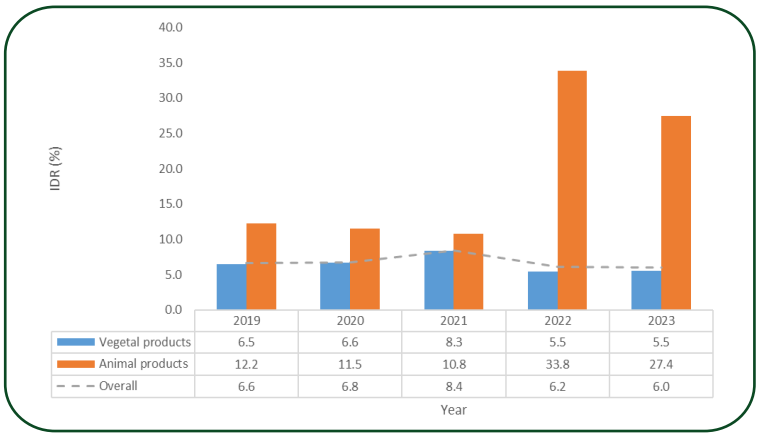


**Figure 13: Import Dependency Ratio for Vegetal and Animal products Groups**

Table 51 shows the IDR results for 13 vegetal products. Two vegetal products, spices and stimulants, had average IDRs above 90% (extremely high dependency rating) meaning that Zambia had near total dependency on imports of the two products during the review period. On average, vegetable oils had a high dependency rating (63.3%) as far as import dependency was concerned. This means that Zambia significantly relied on imports of vegetable oils from 2019-2023. The other ten vegetal products had a low dependency rating suggesting that the country was self-sufficient in the production of these products.

**Table 51: Import Dependency Ratio (%) for commodity Groups of Vegetal products**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| Cereals (excl. beer) | 5.3 | 8.3 | 8.2 | 4.6 | 5.9 | 6.5 |
| Starchy roots | 1.1 | 1.0 | 1.4 | 0.9 | 0.8 | 1.0 |
| Sugar crops | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Sweeteners | 1.5 | 0.7 | 0.6 | 5.9 | 1.0 | 1.9 |
| Pulses | 0.0 | 5.5 | 0.0 | 0.0 | 0.0 | 1.1 |
| Treenuts | 0.0 | 0.0 | 0.0 | 15.2 | 0.0 | 3.0 |
| Oilcrops | 1.1 | 2.0 | 5.5 | 0.6 | 0.6 | 2.0 |
| Vegetable oils | 75.3 | 72.7 | 65.3 | 56.5 | 46.9 | 63.3 |
| Vegetables | 20.7 | 7.8 | 4.0 | 3.0 | 2.5 | 7.6 |
| Fruits (Excluding Wine) | 21.7 | 19.5 | 21.4 | 23.6 | 24.7 | 22.2 |
| Stimulants | 233.0 | 134.6 | 160.7 | 162.5 | 168.8 | 171.9 |
| Spices | 104.6 | 104.6 | 106.0 | 102.7 | 79.1 | 99.4 |
| Alcoholic beverages | 7.2 | 9.3 | 7.8 | 7.7 | 8.1 | 8.0 |

The IDRs for animal products reported in Table 52 show that only milk had some reliance on imports because of its average IDR of 31.3%. The moderate dependency rating for milk was mainly driven by the modest and significant increase in milk IDR in 2021 and 2022 respectively. Meat, animal fats, and fish and sea food had average IDRs greater than zero, but they all fell within the low dependency rating. Products such as offals and eggs maintained an average IDR of zero throughout the reporting period.

**Table 52: Import Dependency Ratio (%) for selected Animal products Group**

| | 2019 | 2020 | 2021 | 2022 | 2023 | Average |
|---|---|---|---|---|---|---|
| **Meat** | 11.0 | 13.3 | 11.8 | 28.0 | 28.0 | 18.4 |
| **Offals** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Animal fats** | 8.8 | 10.5 | 0.0 | 12.4 | 15.1 | 9.4 |
| **Milk - Excluding Butter** | 28.6 | 20.6 | 36.2 | 50.3 | 20.6 | 31.3 |
| **Eggs** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Fish & sea food** | 6.0 | 2.4 | 1.1 | 0.4 | 0.4 | 2.1 |

It is important to note that a food product can have a SSR that is greater than 100% but at the same time have an IDR which is a bit high. An example in this report is the case of milk. In 2022, the SSR for milk was 102.7% but the IDR was 50.3% (high dependency on imports). Although this sounds contradictory, a look at how the two measures were constructed can help to explain why this scenario is feasible. Consider, for instance, the 2022 results reported in the standard tables in Annex 9. Milk and its products has exports of about 59,000 MT, imports of 51,000 MT, production of 104,000 MT, and stock variation of minus 6,000MT. Based on the formulas used to construct the SSR indicator (See Chapter 1), the high export value reduces the denominator relatively to the numerator, resulting in a SSR above 100%. Similarly, the IDR is also high because the numerator value (imports) is relatively high, while the high value of exports is reducing the denominator, leading to the computed IDR of 50.3%.

## 3.8. Food Loss Index (FLI)

One important application of the Food Loss Index (FLI) is that it is used to measure progress towards the United Nations' SDG Target 12.3. The SDG target aims to halve per capita global food waste at retail and consumer levels and reduce food losses throughout production and supply chains. The FLI indicates how much losses deviate from the baseline value equal of 100 in the base year. It focuses on the supply stages of food chains and tracks percentage changes in losses over time, excluding post-harvest losses on farms. This index enables policy makers to assess positive and negative trends in food loss relatively to the baseline year and use this information to enhance the efficiency of food supply systems.

The methodology for computing the FLI was developed by the FAO[3] and tailored for Zambia. In this report, 2019 was set as the base year, as it marks the beginning of the review period for the first Zambia's comprehensive FBS. The FLI is computed as the ratio of the Food Loss Percentage (FLP) in the current period to the FLP in the base period, multiplied by 100.

The standard methodology for estimating the FLI involves selecting the top two commodities from each of the five food groups based on production value. These groups include: (i) cereals and pulses; (ii) roots and tubers and oil-bearing crops; (iii) fruits and vegetables; (iv) animal products, and; (v) fish and fish products. During the country FBS review for the period 2019 – 2023, modifications were made due to challenges in data regarding food loss ratios. As a result, the selected basket of 10 key commodities for Zambia included commodities from only four food groups, excluding fish and fish products. Consequently, the cereals and pulses, and the roots and tubers and oil-bearing crops food groups included more than two commodities. The selected food products by group were as follows:

i. Cereals and Pulses: Maize, Rice and Beans;
ii. Roots and Tubers and Oil-Bearing crops: Groundnuts, cassava, potatoes and Sweet potatoes;
iii. Fruits and Vegetables: Tomatoes and

[3] The detailed methodology is in annex 1.

mangoes; and

iv. Animals Products: Raw milk of cattle.

### 3.8.1. Food Loss Percentage and Food Loos Index

Table 53 presents the changes in FLP for the 10 selected commodities during the review period. There were no substantial fluctuations in the loss percentages, which ranged from 6.9% to 7.1%. In other words, the average losses along the supply chain for these key commodities remained stable, never falling below 6.9% or exceeding 7.1%. The three commodities with noticeable changes in food losses were rice, potatoes and sweet potatoes.

**Table 53: Food loss percentages over time by commodity type**

| Commodity Group | Commodity | Loss percentages per year by commodity | | | | |
|---|---|---|---|---|---|---|
| | | 2019 | 2020 | 2021 | 2022 | 2023 |
| Cereals &Pulses | Maize (corn) | 8.9 | 8.9 | 8.9 | 8.9 | 8.9 |
| Cereals &Pulses | Rice | 7.3 | 4.3 | 5 | 5 | 5 |
| Fruits& Vegetables | Tomatoes | 10 | 10 | 10 | 10 | 10 |
| Fruits& Vegetables | Mangoes, guavas, mangosteens | 10 | 10 | 10 | 10 | 10 |
| Tubers, roots and oil-bearing crops | Groundnuts, excluding shelled | 10 | 10 | 10 | 10 | 10 |
| Tubers, roots and oil-bearing crops | Cassava, fresh | 5 | 5 | 5 | 5 | 5 |
| Tubers, roots and oil-bearing crops | Potatoes | 16.5 | 8.2 | 17 | 18.8 | 21.3 |
| Tubers, roots and oil-bearing crops | Sweet potatoes | 8.7 | 5.1 | 6.5 | 7.8 | 6.4 |
| Cereals &Pulses | Beans, dry | 5 | 5 | 5 | 5 | 5 |
| Animal products | Raw milk of cattle | 5 | 5 | 5 | 5 | 5 |
| **Food Loss Percentage** | | **7.1** | **6.9** | **7** | **7.1** | **7.1** |

Figure 14 illustrates that the FLI, using 2019 as the base year, decreased over time, with the largest decline occurring in 2020. The trend of FLI for Zambia is mainly explained by the level of losses of 3 commodities: potatoes, sweet potatoes and rice. The global situation of losses has improved in 2020 as compared to the base year with a drop of the index by 3.3%. An upward trend is observed from 2021 to 2023 due to the increase of losses for the same 3 commodities, but the impact was not enough to bring the FLI to its base year level. Despite efforts in keeping losses below the base year level, the FLI fell short of achieving the SDG target 12.3, which aims to halve food losses along the supply chain.

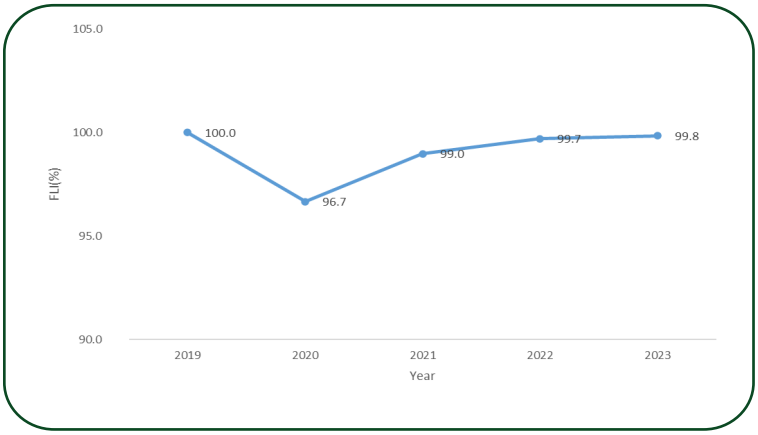


**Figure 14: Food Loss Index over time**

## 3.9. Prevalence of Undernourishment (PoU)

The Prevalence of Undernourishment (PoU) is defined by the FAO as the percentage of the population whose daily caloric intake is below the Minimum Dietary Energy Requirement (MDER). The MDER is the amount of energy needed for a person to maintain a healthy weight, considering factors such as age, gender, weight, height and physical activity level. The PoU serves as an important indicator of food security and nutrition, measuring progress towards SDG Target 2.1, which aims to end hunger and ensure that all people, particularly the poor and those in vulnerable situations, including infants, have access to safe, nutritious and sufficient food year-round.

Using the methodology developed by the FAO[4], the MDER, PoU and population undernourished were computed. The evolution of each of these three indicators is presented in turn.

### 3.9.1. Evolution of the Minimum Dietary Energy Requirement

Figure 15 presents the MDER in Zambia and how it evolved during the five-year period from 2019 – 2023. The lowest MDER during this period was in 2019 at 1,677.5 Kcal per capita per day, while the highest MDER was in 2021 at 1,681.4 Kcal per capita per day. The small variations of MDER are explained by the changes in the structure of the population and the birth rate over the period. The results indicate that the MDER did not change substantially during the reference period.

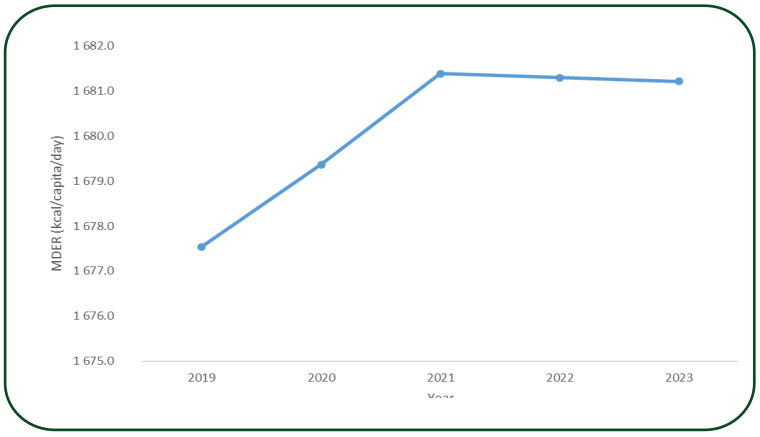


**Figure 15: Evolution of MDER in Zambia**

### 3.9.2. Evolution of the Prevalence of Undernourishment

The prevalence of undernourishment (PoU) in Zambia ranged between 27.3% and 29.8% (Figure 16). The PoU is negatively correlated with DES. This would mean that the larger the DES, the more it contributes to reducing the PoU. The highest PoU was recorded in 2022 corresponding to the lowest DES (2,310 Kcal/cap/day) over the period, while 2021 had the lowest rate corresponding to the highest value of DES (2,384 Kcal/cap/day) over the period 2019-2023. PoU levels between 25% and 35% indicate a high prevalence, suggesting that a significant portion of the population may be at risk (FAO, 2020). These findings imply that Zambia was not on track to achieve the SDG target 2.1 during the period under review. Concerted efforts are needed to reverse this trend and attain lower levels of undernourishment, ideally below 5%.

[4] The detailed methodology is in annex 2.

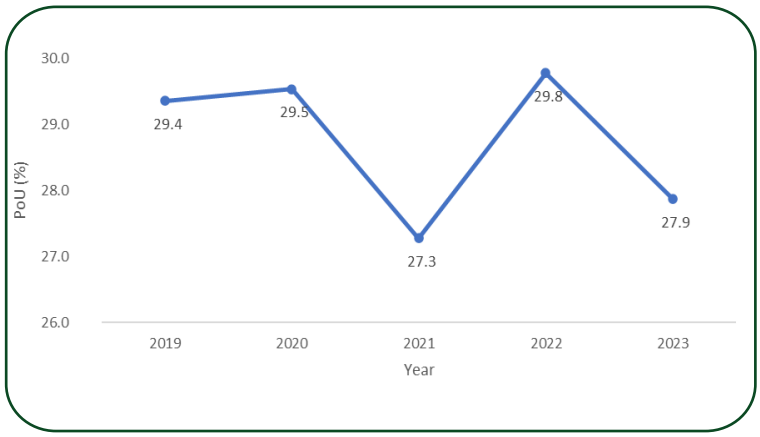


**Figure 16: Evolution of PoU in Zambia (2019 – 2023)**

### 3.9.3. Evolution of the Population Undernourished (in millions)

The population undernourished refers to the number of individuals within a defined population who do not have access to sufficient food to meet their minimum dietary energy needs. This is computed using the following formula:

$$\text{Pop undernourished} = \text{PoU x Population}$$

Figure 17 shows a general rise in the population of undernourished individuals from 2019 to 2023, despite some fluctuations. The number of undernourished people varied between 5 million and 5.8 million during this period, figures that should greatly concern policy makers working to enhance the country's food security.

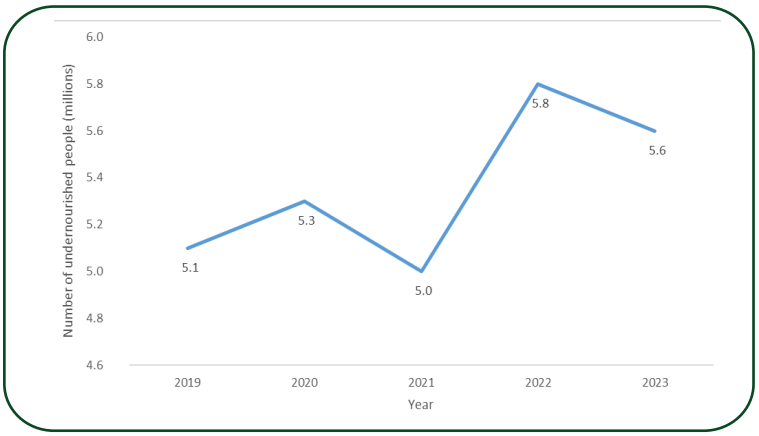


**Figure 17: Evolution of population undernourished in Zambia (2019 – 2023)**

## 3.10.Comparison of Selected Indicators Produced by the Country's FBS Process vs FAOSTAT Results

The Food and Agriculture Organization of the United Nations (FAO) publishes annual FBS results for 187 countries on its FAOSTAT website, with the most recent data covering the period from 2010 to 2022. In addition, FAO calculates key indicators, which are included in the report "The State of Food Security and Nutrition in the World." In this section, comparison is made between results generated through the FBS compilation process conducted by the country (process undertaken to generate this report) and those generated by FAO. The section is divided into two sub-sections as follows: (i) Comparison of country generated results with FAO results

of DES, proteins and fats supply, and (ii) Comparison of country generated results with FAO results of prevalence of undernourishment.

### 3.10.1. Comparison of country generated results with FAO results of DES, protein and fats supply

Table 54 provides a comparison between FBS results generated by the country and FAO results of three indicators: (i) dietary energy supply per capita per day, (ii) protein supply per capita per day, and (iii) fats supply per capita per day. As already stated above, the FBS results generated by FAO were only available up to 2022. Therefore, a four-year period from 2019-2022 was used to compare the two sources of FBS data.

The average DES generated through the country FBS process was 127.72 kcal per capita per day higher than that generated by the FAO. Similarly, the average protein supply per capita per day from the country FBS was 5.75 g greater than the FAO figures. In addition, the average fat supply per capita per day for the country results exceeded the FAO results by 5 g.

**Table 54: Comparison of country generated results with FAO results of DES, proteins and fats supply**

| Source of results | 2019 | 2020 | 2021 | 2022 | Average |
|---|---|---|---|---|---|
| Zambia | 2322 | 2317 | 2384 | 2310 | 2333.25 |
| FAOSTAT | 2243 | 2222.5 | 2198.6 | 2158 | 2205.53 |
| Zambia | 48 | 42 | 44 | 44 | 44.50 |
| FAOSTAT | 43 | 42 | 44 | 44 | 43.25 |
| Zambia | 48 | 46 | 55 | 53 | 50.50 |
| FAOSTAT | 44 | 44 | 47 | 47 | 45.50 |

The difference in the two sets of results could be attributed to two factors. First, the FAO results used population figures drawn from UNPD projections while the country results used official/ national population data from ZamStats. The population estimates used by the country were lower than those used by FAO by an average difference of 880,250 people (Table 55). Since population figures are used to compute the indicators on a per capita basis, this could explain why the FAO values of DES, protein and fat supply were lower than those generated by the country.

**Table 55: Comparison of population estimates used by the country FBS process with FAOSTAT estimates**

| Year | Population ('000) | | |
|---|---|---|---|
| | Country | FAOSTAT | Difference (FAOSTAT-country) |
| 2019 | 17381.00 | 18380.48 | 999.48 |
| 2020 | 17885.00 | 18927.72 | 1042.72 |
| 2021 | 18401.00 | 19473.13 | 1072.13 |
| 2022 | 19611.00 | 20017.67 | 406.67 |
| **Average** | **18319.50** | **19199.75** | **880.25** |

The second reason for the difference in the three indicators generated by the two sources was due to the difference in data used to compute the food supply estimates to derive the indicators. To illustrate this point, production and food loss data of selected commodities used by the two sources of FBS results were compared. In the case of production data (Table 56), for example, the FAO used production figures which were consistently lower than data used by the country for commodities such as refined sugar and pig meat. The average production of refined sugar used by FAO was 408,000 tonnes lower than that for the country FBS. Pig meat average production data used by FAO was also less than data used by the country by 11,000 tonnes. However, there were other commodities for which the FAO used production data that was higher than data used by the country. Theses commodities include bovine meat (FAO data was higher than country data by 136,000 tonnes on average) and eggs (FAO data was on average higher by 49,000 tonnes). There was yet another set of commodities for which production data used by the two sources of FBS data were basically the same. An example is beans for which the difference between FAO and country data was negligible or zero during the period 2020-2022. The only exception when production data for beans was very different between the two sources of FBS results was in 2019, a year when the FAOSTAT website did not capture production data for beans.

**Table 56: Comparison of production data ('000 tonnes) of selected commodities: country vs FAO**

| Commodity | Source | 2019 | 2020 | 2021 | 2022 | Average |
|---|---|---|---|---|---|---|
| Refined sugar | Country | 724 | 749 | 695 | 527 | 674 |
| | FAOSTAT | 236 | 278 | 249 | 298 | 265 |
| | **Difference (FAOSTAT-Country)** | **-487** | **-471** | **-446** | **-229** | **-408** |
| Beans | Country | 62 | 49 | 55 | 60 | 56 |
| | FAOSTAT | | 51 | 55 | 60 | 55 |
| | **Difference (FAOSTAT-Country)** | | **2** | **0** | **0** | **1** |
| Pig meat | Country | 43 | 38 | 37 | 38 | 39 |
| | FAOSTAT | 28 | 30 | 28 | 24 | 28 |
| | **Difference (FAOSTAT-Country)** | **-15** | **-8** | **-9** | **-14** | **-11** |
| Bovine meat | Country | 49 | 50 | 57 | 61 | 54 |
| | **FAOSTAT** | **191** | **199** | **188** | **181** | **190** |
| | **Difference (FAOSTAT-Country)** | **142** | **149** | **132** | **120** | **136** |
| Eggs | Country | 19 | 18 | 18 | 14 | 17 |
| | FAOSTAT | 66 | 66 | 66 | 66 | 66 |
| | **Difference (FAOSTAT-Country)** | **47** | **49** | **49** | **53** | **49** |

In terms of losses (Table 57), there were commodities where the average difference in loss data was negligible or completely zero (wheat and sweet potatoes). On the other hand, losses in commodities such as maize were significantly huge with the average difference in losses between the country data and FAO data computed as 149,000 tonnes. There was also a case where the difference in loss data was primarily because of missing data on losses from one of the sources of FBS results. For example, the FAO did not report loss data for beans, but the country had data on losses in beans.

**Table 57: Comparison of food loss data ('000 tonnes) of selected commodities: country vs FAO**

| Commodity | Source | 2019 | 2020 | 2021 | 2022 | Average |
|---|---|---|---|---|---|---|
| Wheat | Country | 6 | 8 | 10 | 14 | 9 |
| | FAOSTAT | 9 | 10 | 10 | 12 | 10 |
| | **Difference (FAOSTAT-Country)** | **3** | **2** | | **-2** | **1** |
| Maize | Country | 179 | 305 | 324 | 241 | 262 |
| | FAOSTAT | 162 | 102 | 109 | 81 | 113 |
| | **Difference (FAOSTAT-Country)** | **-17** | **-203** | **-215** | **-160** | **-149** |
| Sweet potatoes | Country | 10 | 7 | 14 | 10 | 10 |
| | FAOSTAT | 9 | 7 | 14 | 9 | 10 |
| | **Difference (FAOSTAT-Country)** | **-1** | | **1** | **-1** | |
| Beans | Country | 3 | 3 | 3 | 3 | 3 |
| | FAOSTAT | | | | | |
| | **Difference (FAOSTAT-Country)** | **-3** | **-3** | **-3** | **-3** | **-3** |

Therefore, the difference in data such as production and food loss could have contributed to the disparity in FBS results between the two sources.

### 3.10.2. Comparison of country generated results with FAO results of Prevalence of Undernourishment

The country generated annual PoU results for the period 2019-2023. The FAO, on the other hand, did not publish annual PoU results during the period under review. The PoU results available from FAO were moving averages for the periods 2019 – 2021 and 2020 – 2022. To facilitate comparison between the country and FAO results, adjustments were made to the country generated results by computing averages that aligned with the periods used for the FAO moving averages.

PoU results generated by FAO versus country generated results are reported in Table 58. For the period 2019-2021, the difference between the PoU generated by FAO and the country generated PoU was 2.2 percentage points. The difference reduced to 0.9 percentage points during the period 2020-2022. The difference in the PoU estimates could be attributed to (i) the different population estimates used by the two sources, and (ii) difference in DES generated by the 2 sources.

**Table 58: Comparison of PoU (%) results: FAO vs Country**

| | FAO | Country |
|---|---|---|
| 2019-2021 | 30.9 | 28.7 |
| 2020-2022 | 29.8 | 28.9 |

Despite the differences in PoU highlighted above, both the FAO and country generated PoU results fell within the PoU threshold of high prevalence of undernourishment (25-35%). This suggests that the process used to generate PoU results by the country was robust enough to come up with similar conclusions like a source that is extensively used (FAOSTAT).

# CHAPTER 4: CONSTRAINTS, LESSONS LEARNT AND RECOMMENDATIONS

## 4.1 Constraints

While compiling the Zambia FBS results for the period 2019 - 2023, a few constraints were encountered, which threatened the effective and timely delivery of a comprehensive FBS. These included:

i. **Limitations in data availability** – The preparation of SUA basic data files required information from several sources. Generally, data for most commodities captured in household surveys and administrative systems by ZaMstats, MoA and MFL was readily available. However, some commodities that had limited or no data. For example, the production of fruits and vegetables is not included in the CFS. The only nationwide dataset available for reference was the longitudinal dataset from the Rural Agricultural Livelihoods Survey (RALS) conducted by the Indaba Agricultural Policy Institute (IAPRI) in collaboration with MoA and MFL. The challenge is that the only wave of RALS collected during the reference period of this FBS compilation was from 2019. In addition, the RALS focused exclusively on smallholder farmers, excluding, large-scale farms involved in fruits and vegetables production. To address this limitation, imputations were made using the 2019 RALS data, which may introduce some inaccuracies. Other SUA files with limited or missing data included seed quantities, laying chickens, disaggregated data on fish species, informal re-exports, nutritive factors, and information on industrial use of some products.

ii. **Delays in responding to data requests** – In some cases where data was available, it was not shared in a timely manner. This was mainly because the people responsible for providing the requested data had other equally important assignments, which caused delays in compiling the information in a shareable format. In addition, concerns about data confidentiality significantly impacted the release of data, particularly in industries with few players.

iii. **Challenges in the timing of the national training workshop on FBS compilation** – The national training workshop on FBS compilation and the generation of preliminary FBS results was planned during the development of the roadmap in October 2023 to ensure that members appointed to the FBS_TWG had ample notice to attend. However, the training coincided with the commencement of the CFS, resulting in some members being unable to participate fully. In addition, the drought affecting the 2023/24 farming season caused some participants to miss sessions in order to attend meetings regarding the situation. Although mitigation measures were implemented to help those who missed part of the training catch up, the significant gaps in their attendance further delayed the generation of preliminary FBS results.

## 4.2. Lessons Learnt

Despite the constraints highlighted above, the comprehensive FBS compilation was successfully completed, yielding few lessons from the process, including the following:

i. The establishment of the FBS_TTWG was an important step in the process, ensuring representation from sectors for the successful compilation of the SUA basic data. Members were assigned tasks, which they carried out to the best of their abilities. They shared expertise on compiling basic data, managing inconsistencies, and estimating or imputing missing values. With support from the international and national consultants, the Team effectively addressed various data challenges, ultimately enhancing the accuracy of the data submitted in the SUA basic data files.

ii. The challenges of data inconsistencies, missing information and slow responses from data providers indicated to the FBS_TWG the necessity of starting the data collection process in good time.

iii. The FBS provides insight into food security

and agricultural situation in the country. As already alluded to, Zambia has an established CBS that serves as a crucial forecasting tool for estimating deficits or surpluses in key commodities like maize. The compilation of the comprehensive FBS has expanded the number of indicators available for effective policy decision making. These indicators include food supply per capita per year, DES per capita, daily protein supply per capita, daily fats supply per capita and supply of minerals and vitamins. Other key indicators include SSR, IDR, FLI and PoU. The FLI and PoU are included to monitor progress towards important SDGs.

## 4.3. Conclusion and Recommendations

With technical and financial assistance from the AfDB, the MoA, MFL and ZamStats successfully compiled comprehensive FBS for the period 2019 – 2023. This unprecedented achievement has established a solid foundation for the country to generate key indicators beneficial to stakeholders in both the private and public sectors. This is especially crucial for promoting investments that enhance the food security, improve health outcomes for the Zambian population, guide the country toward self-sufficiency in key commodities, and achieve relevant SDG targets before 2030.

To ensure the sustainability of the FBS compilation process in Zambia and to guide policy, several recommendations are proposed:

i. Members of the FBS_TWG who missed the training on the FBS Compilation Tool must undergo training to increase the number of staff familiar with the Tool. With minimal support, those who completed the full training can orient others.
ii. The FBS_TWG should be expanded to include additional strategic partners that could assist in data collection, such as commodity associations and policy think tanks.
iii. To gain support from policy makers, the CBS should not be completely abandoned due to its critical role in forecasting surplus or deficits of key commodities such as maize. Therefore, the comprehensive FBS and CBS should be conducted simultaneously, as both contribute valuable insights necessary for decision making in the short, medium and long term.
iv. To address the missing data for the compilation of FBS, it is recommended that the CFS, PHS and other relevant surveys include modules to capture this data. Further, strengthening collaboration with organizations that collect data relevant to the FBS process is essential to mitigate delays in data access.
v. The FBS results in this document indicate that Zambia's dietary energy supply performance was good compared to global trends during the reporting period, even though the country continues to face significant food insecurity. While it may seem counterintuitive to have a high dietary energy supply alongside high food insecurity, this situation is not uncommon. Zambia's dietary energy supply is mainly derived from cereals and starchy roots, which likely inflates the estimates of this indicator relative to global figures. Furthermore, dietary energy supply is only one component of food security. Other important factors include nutrient quality, food safety, access and affordability, stability and reliability, and cultural acceptability. Therefore, it is possible to experience both high DES and food insecurity at the same time. This disparity requires further investigation, particularly by researchers in the field.
vi. Other important micronutrients, such as iodine and vitamin B12, were not included in the report because Zambia currently lacks the necessary related conversion factors. Once these factors become available, future FBS reports should incorporate results and analysis of relevant micronutrients that were omitted in this report.
vii. Some food products, such as fish

(including kapenta) and seafood, have not been included in the estimates of daily micronutrients supply (iron, calcium and vitamins) due to the unavailability of relevant conversion factors for these computations. Therefore, it is recommended that once these conversion factors are available, future FBS reports should include fish and seafood contributions to daily calcium and iron supply.

viii. Seasonal forest food commodities, such as mushrooms, caterpillars, honey, and fruits (e.g. masuku (Uapaca kirkiana)and masau (Ziziphus mauritiana)), have not been considered due to lack of related basic data. Given their critical role in Zambia's food system, it is therefore recommended that for future FBS compilation cycles specific related surveys and/or studies be conducted so that such food commodities are also captured.

ix. FBS results for Zambia (2019-2023) estimated average daily supply of iron per capita in Zambia to be 12.7 mg. While this amount was sufficient for infants, children, male adolescents and adult men, the daily supply of iron per capita in Zambia was below the Institute of Medicine (2001) recommended daily intake rates of iron for adolescent females (15 mg) and adult women (18 mg). There is need to enhance implementation of policy actions to help address iron deficiency across various demographics in Zambia, especially for adolescent females and adult women.

The dissemination meeting of this report, that included several stakeholders, recommended that the findings of the report be effectively used to improve agricultural production, food and nutrition policies. Yet, the following should be of special and urgent attention and consideration by the Government:

- Strengthen Nutrition-Sensitive Agriculture: Findings highlight persistent gaps in protein and micronutrient supply. Addressing these requires diversifying food systems beyond starchy roots and cereals. Policy action should therefore prioritize the promotion of animal-sourced foods, legumes, fruits, and vegetables through targeted incentives and support programs.
- Accelerate Efforts to Reduce Food Losses: Zambia has made limited progress towards halving food losses, particularly in potatoes, sweet potatoes, and rice. Strategic investment in storage, processing, and value chain infrastructure is urgently needed. These efforts must be complemented by stronger extension services that build farmer capacity in post-harvest handling.
- Tackle Persistent Undernourishment: Despite sufficient aggregate food supply, undernourishment remains high. Expanding social protection and nutrition-sensitive interventions for vulnerable households is critical to improving dietary quality and ensuring equitable access to adequate nutrition.
- Support Livestock and Fisheries Development: Animal products remain insufficient in meeting national nutritional requirements. Policies should therefore continue to strengthen livestock and fisheries development, with particular focus on investments in animal feed systems, veterinary services, and smallholder commercialization to expand supply.

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# ANNEXES

# Annex 1 – Metholodology for estimating Food Loss Index (FLI)

This is a brief description of the methodology on how to estimate the Food Loss Index (FLI). The details can be accessed in FAO (2018). The FLI is a composite index for essential products in the production of a country. The aggregate index is used for national, global, and international monitoring of progress accomplished for achieving the Target 3 of SDG 12. In addition, countries can calculate, if needed basic data are available, FLIs to disaggregated level, by geographic area or by agro-ecological zone, or at different links of the value chain (farms, transport, markets, processors etc.). Then the FLI of all countries can be aggregated to obtain the Global Food Loss Index (GFLI).

The calculation of the Global Food Loss Index follows therefore following steps:

1. Choice of a base year;
2. Selection of the basket of goods and compilation of the weight of each good at the base year;
3. Estimated loss percentages for each product and Food Loss Percentage (FLP) in the country;
4. Comparison of FLPs over time and calculating the FLI;
5. Aggregation of FLIs to deduct GFLI.

## Selection of the basket of goods

The selection of products is done taking into account national targets. Indeed, it is difficult to find loss estimates for all products consumed in all countries for timer the Global Index and facilitate international comparisons. Since dietary diversity and achieving food security are the key priorities targeted through the calculation of the FLI, the basket must contain a structured set of product headings covering many facets of a typical diet. These headings are the following: (1) Cereals & Pulses, (2) Fruits & Vegetables, (3) Roots & Tubers and Oil-Bearing crops, (4) Animals Products, and (5) Fish and Fish Products). 10 products are recommended to be selected in these different headings.

The international recommendation is to constitute the 5 groups and choose two products in each group. The method of selection of products, which is internationally followed, is to rank the value of the production of the products by country and by group and choose the two products which have the highest production value in the group. The selection process is based on the international dollar value of commodities in the base year.

At the national level, countries can use their own set of values or quantities and their prices, or use different criteria based on policies, provided that the main headings are covered. Once the basket of products is chosen, this basket remains fixed at the national/global levels to allow comparisons over time. In addition, FAO explains that:

- The headings correspond to basic food groups and dietary needs. Each country therefore should have at least one priority product in each heading.
- Product loss levels within headings should be broadly similar, within countries, while average losses between categories will be systematically different. For example, the variation of losses in fruits is higher than those in grains, but within grains losses may be similar.

## Estimated percentages of losses of each commodity and FLP

Once the basket of commodities has been chosen, the next step is to calculate loss percentages. The losses are expressed as a percentage of the total of Production + Import. The choice of percentages instead of loss values are justified by the fact that the percentages are relatively stable over time as opposed to values. For each product, the percentage of loss Lijt by country (i), commodity (j) and year (t) is either estimated or observed.

These percentages can be obtained through surveys of farmers by including modules in the survey on post-harvest losses and estimate percentages losses according to certain methodologies as proposed in the International Guidelines related to it. The Food Loss Percentage (FLP) therefore provides the average level of loss and can help countries to assess the level and extent of food losses of their country compared to others, or in an international context.

It is calculated using the following formula:

$$FLP_t = \frac{\sum_j L_{jt} * (q_{jt_o} * p_{jt_o})}{\sum_j (q_{jt_o} * p_{jt_o})}$$

Where:

Ljt = loss percentage (estimated or observed) for commodity j in year t;
to = the base year;
qjto = Production plus Imports for commodity j in the base year;
pjto = International dollar price for commodity j in the base year.

## Calculation of the Food Loss Index (FLI)

The country-level indices (FLI) are simply equal to the ratio of the Food Loss Percentage in the current period and the FLP in the base period multiplied by 100.

$$\text{FLI}_t = \frac{FLPt}{FLPto} X\ 100$$

While that the FLPt is the country's food loss percentage in year t, The related FLIt shows how much losses move from the baseline value equal to 100 in the base year.

# Annex 2 – Metholodology for estimating Prevalence of Undernourishment (PoU)

The FAO prevalence of undernourishment (PoU) indicator monitors progress towards Millennium Development Goal target 1C of halving, between 1990 and 2015, the proportion of people suffering from hunger. Estimates of the number of undernourished (NoU) calculated by multiplying the PoU by the size of the reference population are used to monitor progress towards the World Food Summit goal of reducing by half the number of people suffering from undernourishment.

The PoU indicator is defined as the probability that a randomly selected individual from the reference population is found to consume less than his/her calorie requirement for an active and healthy life. It is written as:

$$PoU = \int_{x<MDER} f(x)dx$$

Where $f(x)$ is the probability density function of per capita calorie consumption.
The parameters needed for the calculation of the indicator are: the mean level of dietary energy consumption (DEC); a cut-off point defined as the Minimum Dietary Energy Requirement (MDER); the coefficient of variation (CV) as a parameter accounting for inequality in food consumption; and a skewness (SK) parameter accounting for asymmetry in the distribution. The DEC as well as the MDER are updated annually, with the former calculated from the FAO Food Balance Sheets. The MDER is calculated as a weighted average of energy requirements according to sex and age class and is updated each year from UN population ratio data. The inequality in food consumption parameters is derived from National Household Survey data when such data is available and reliable. Due to the limited number of available household surveys, the inequality in food access parameters is updated much less frequently over time than the DEC and MDER parameters.

To implement this methodology, it is necessary to: (i) choose a functional form for the distribution of food consumption $f(x)$; (ii) identify values for the three parameters, that is, for mean food consumption (DEC), its variability (CV) and its asymmetry (SK); and (iii) compute the MDER threshold. The probability density function used to infer the habitual levels of dietary energy consumption in a population, $f(x)$, refers to a typical level of daily energy consumption during a year. As such, f(x) does not reflect the possible implications of insufficient food consumption levels that may prevail over shorter periods. Both the probability distribution $f(x)$ and the MDER threshold are associated with a representative individual of the population, of average age, sex, stature and physical activity level.

## Functional Form

The FAO methodology for the calculation of the prevalence of undernourishment uses a probability framework in which the distribution of per capita calorie consumption of the representative individual is characterized. The use of such a framework is necessary, as data typically are not available on individual food consumption and requirements, but rather for household acquisition. Starting with the estimates of undernourishment produced for the Sixth World Food Survey in 1996, the distribution was assumed to be lognormal. This model is very convenient for the purposes of analysis, but has limited flexibility, especially in capturing the skewness of the distribution.

As part of the revisions made for the 2012 edition of The State of Food Insecurity in the World Report, the methodology moved away from the exclusive use of the two parameters lognormal distribution to adopt the more flexible three parameter skew-normal and skew- lognormal families [3]. In the case of the lognormal distribution, the skewness can be written as function of the CV as:

SK = (CV^2+3) *CV (1)

This implies that the SK for the lognormal distribution is completely determined by the CV derived from household survey data. The flexibility gained from the additional parameter allows for independent characterization of the asymmetry of the distribution. The skew-normal distribution can be considered a generalization of the normal distribution that can account for departures from normality to a certain degree, corresponding to skewness values within the approximate range (-0.995, 0.995). The distribution cannot be evaluated at higher levels of asymmetry, and so ways to deal with higher degrees of skewness need to be found. One solution is to consider only the restricted range of the skewed-normal distribution in the calculation of the PoU. Another solution is to add another level of flexibility in which the functional form for the distribution itself is allowed to change, based on the level of asymmetry in the data. The identification of the appropriate combination of functional forms as well as the level of asymmetry at which to change functional forms motivates the investigations below.
The simplest way to handle skewness outside of the range of the skewed-normal distribution is to place a ceiling on the SK parameter (such as 0.99) and to use this limit for higher degrees of asymmetry. The implementation of this approach (referred to as **Function 1**) – in (a) the PoU is shown as a function of the SK parameter with the other parameters fixed (DEC equal to 2000, MDER equal to 1800, and CV equal to 0.35) and in (b) the density function is shown the with the same parameters fixed but with the SK equal to zero (corresponding to the normal distribution), 0.75, and 0.99 (the ceiling). High levels of asymmetry in the data may indicate that the skew-normal distribution is not the appropriate model, and alternative criterions for the selection of the functional form are described below.

As a first alternative to the application of the skewed-normal distribution described above, consider replacing the ceiling with a new value W, and evaluating the log-normal distribution for skewness values higher than W. If we denote the PoU evaluated using the lognormal distribution as PoULN, we can write this criterion for the choice for the distribution (**Function 2**) as:

$$PoU = PoULN\ (DEC, CV, SK, MDER),\ SK \geq W \quad (2a)$$
$$PoU = PoUSN\ (DEC, CV, SK, MDER),\ SK < W \quad (2b)$$

Although the two different functional forms for the distribution do allow for a wider range of levels of asymmetry to be captured, discontinuities in the PoU occur as the functional form transitions from one to the other. An intermediate distribution may help to link such a gap, and this is the motivation behind the criterion below for the choice of the functional form.

As a modification of the criterion described above, consider using the log-skewed-normal distribution2 (denoted by PoULSN) as an intermediate between the transition of the functional form from the skewed-normal to the log-normal, as written below:

$$PoU = PoU_{LN}\ (DEC, CV, SK, MDER),\quad SK \geq (CV^2 + 3)\ CV \quad (3a)$$
$$PoU = PoU_{LSN}\ (DEC, CV, SK, MDER),\quad W < SK < (CV^2 + 3)CV \quad (3b)$$
$$PoU = PoU_{SN}\ (DEC, CV, SK, MDER),\quad SK < W \quad (2b) \quad (3b)$$

In the criterion written above (Function 3), the skewness implied theoretically by the lognormal is used both as a floor for the application of the lognormal and as a ceiling for the application of the log-skewed-normal. The fixed switch point W is used as a floor for the application of the log-skewed-normal and as a ceiling for the application of the skewed-normal.

## Estimating and projecting mean food consumption

To compute per capita DEC in a country, FAO has traditionally relied on Food Balance Sheets, which are available for more than 180 countries. This choice was due mainly to the lack, in most countries, of suitable surveys conducted regularly. Through data on production, trade and utilization of food commodities, the total amount of dietary energy available for human consumption in a country for a one-year period is derived using food composition data, allowing computation of an estimate of per capita dietary energy supply.

During the revision for The State of Food Insecurity in the World 2012 a parameter that captures food losses during distribution at the retail level was introduced in an attempt to obtain more accurate values of per capita consumption. Region-specific calorie losses were estimated from data provided in a recent FAO study and ranged from 2 percent of the quantity distributed for dry grains, to 10 percent for perishable products such as fresh fruits and vegetables.

## Estimating the MDER threshold

To calculate the MDER threshold, FAO employs normative energy requirement standards from a joint FAO/WHO/United Nations University expert consultation in 2001. These standards are obtained by calculating the needs for basic metabolism – that is, the energy expended by the human body in a state of rest – and multiplying them by a factor that takes into account physical activity, referred to as the physical activity level (PAL) index.

As individual metabolic efficiency and physical activity levels vary within population groups of the same age and sex, energy requirements are expressed as ranges for such groups. To derive the MDER threshold, the minimum of each range for adults and adolescents is specified on the basis of the distribution of ideal body weights and the mid-point of the values of the PAL index associated with a sedentary lifestyle. The lowest body weight for a given height that is compatible with good health is estimated from the fifth percentile of the distribution of body mass indices in healthy populations.

Once the minimum requirement for each sex-age group has been established, the population-level MDER threshold is obtained as a weighted average, considering the relative frequency of individuals in each group as weights. The threshold is determined with reference to light physical activity, normally associated with a sedentary lifestyle. However, this does not negate the fact that the population also includes individuals engaged in moderate and intense physical activity. It is just one way of avoiding the overestimation of food inadequacy when only food consumption levels are observed that cannot be individually matched to the varying requirements.

A frequent misconception when assessing food inadequacy based on observed food consumption data is to refer to the mid-point in the overall range of requirements as a threshold for identifying inadequate energy consumption in the population. This would lead to significantly biased estimates: even in groups composed of only well-nourished people, roughly half of these individuals will have intake levels below mean requirements, as the group will include people engaged in low physical activity. Using the mean requirement as a threshold would certainly produce an overestimate, as

all adequately nourished individuals with less than average requirements would be misclassified as undernourished.

FAO updates the MDER thresholds every two years based on regular revisions of the population assessments of the United Nations Population Division and data on population heights from various sources, most notably the Monitoring and Evaluation to Assess and Use Results of Demographic and Health Surveys project coordinated by the United States Agency for International Development (USAID). This edition of The State of Food Insecurity in the World uses updated population estimates from the 2012 revision published by the United Nations Population Division in June 2013. When data on population heights are not available, reference is made either to data on heights from countries where similar ethnicities prevail, or to models that use partial information to estimate heights for various sex and age classes

# Annex 3 - Terms of Reference of the FBS Thematic Technical Working Groups (FBS_TTWG)

The FBS_TTWG is responsible of the production of necessary basic data for FBS compilation within each respective sub-sector. The tasks of each FBS_TTWG are as follows:

a. Producing on time the basic data which are necessary for the compilation of FBS;
b. Making a follow up, so that the produced basic data is validated on time by the appropriate usual validation mechanism before the period set for the compilation of Food Balance Sheets;
c. Checking the consistency of basic data and address any inconsistency that may be raised; and
d. Submitting the Supply Utilization Account (SUA) basic data (including all metadata, the methodologies used for estimation of missing data) to the Focal Points.

The following qualifications are required for FBS_TTWG members:

a. Have a good knowledge of own sector (crops, livestock, fisheries, etc.)
b. Have basic knowledge of MS Office Package, particularly Excel and Word.

# Annex 4 – Composition, membership and role of FBS Thematic Technical Working Group (FBS_TTWG)

| No | Area | Name of Institution | Position | Role |
|---|---|---|---|---|
| **FBS_TTWG1 (Crops)** | | | | |
| 1 | Crop Statistics | MoA | Principal Agricultural Economist | Focal Point |
| 2 | Crop Statistics | MoA | Economist | Member |
| 3 | Crop Statistics | MoA | Senior Statistical Officer | Member |
| 4 | Agriculture Statistics | ZamStats | Statistician | Member |
| **FBS_TTWG2 (Livestock)** | | | | |
| 5 | Livestock Statistics | MFL | Principal Livestock Production Officer | Focal Point |
| 6 | Livestock statistics | MFL | Senior Economist | Member |
| 7 | Agriculture Statistics | ZamStats | Statistician | Member |
| **FBS_TTWG3 (Fisheries)** | | | | |
| 8 | Fisheries statistics | MFL | Principal Statistician | Focal Point |
| 9 | Fisheries Statistics | MFL | Fisheries Statistician | Member |
| 10 | Agriculture Statistics | ZamStats | Statistician | Member |
| **FBS_TTWG4 (Cross-Cutting)** | | | | |
| 11 | Trade Statistics | ZamStats | Statistician | Focal Point |
| 12 | National Account | ZamStats | Statistician | Member |
| 13 | Prices | ZamStats | Statistician | Member |
| 14 | Food Consumption | ZamStats | Principal Statistician | Member |
| 15 | Industrial production | ZamStats | Principal Statistician | Member |
| 16 | Tourism Statistics | Directorate of Immigration | Head Research and Planning | Member |
| 17 | Nutrition | MoA | Principal Food and Nutrition Officer | Member |

## Annex 5 - Terms of Reference of the FBS Core Team

The FBS Core Team is responsible for compiling SUA/FBS basic data received from FBS_TTWG and generating FBS results. The tasks of this Team are as follows:

a. Compiling SUA/FBS basic data received from Thematic Technical Working Groups;
b. Checking the consistency of collected SUA/FBS basic data, and notifying the concerned FBS_TTWG Focal Point of any inconsistency identified so that it can be appropriately addressed;
c. Making a regular follow up so that the FBS_TTWG can submit the SUA/FBS basic data on time;
d. Mapping trade statistics data from HS classification to CPC;
e. Uploading the collected basic data into the Food Balance Sheets Compilation Tool;
f. Generating Food Balance Sheets preliminary results;
g. Checking and identifying any inconsistencies related to the generated FBS preliminary results and addressing them;
h. Strengthening on regular basis the capacity of FBS_TTWG members on the methodology and process of Food Balance Sheets compilation;
i. Preparing the Food Balance Sheets analysis report;
j. Reporting on its work to the FBS Technical Working Group (FBS_TWG); and
k. Securing and archiving the FBS database and results.

The following qualifications are required for any FBS Core Team member:

a. Having a good knowledge of Microsoft Office Package, particularly Word, Excel, and Power Point;
b. Having a good writing skills;
c. Having a good knowledge of the National Agricultural Statistics System;
d. Having ability to lead training workshops; and
e. Having a good background in statistics and/or economics/agroeconomics.

## Annex 6 – Composition, membership and role of FBS Core Team

| No | Area | Name of Institution | Position | Role |
|---|---|---|---|---|
| 1 | Crops Statistics | MoA | Principal Agricultural Economist | FBS Focal Point and FBS Core Team Chair |
| 2 | Agriculture Statistics | ZamStats | Principal Statistician | FBS Focal Point and FBS Core Team Co-chair |
| 3 | Crops Statistics | MoA | Economist | Member |
| 4 | Trade and Agriculture Statistics | ZamStats | Statistician | Member |
| 5 | Fisheries and Livestock Statistics | MFL | Principal Statistician | Member |

# Annex 7 - Terms of Reference of the FBS Technical Working Group for Food Balance Sheets compilation (FBS_TWG)

The main role of the FBS_TWG is to coordinate the FBS work and technically validate the FBS results. The different tasks to be undertaken by the FBS_TWG are described as follows:

a. Validating SUA/FBS basic data as well as Technical Conversion Factors (nutrient factors, extraction rates, seed rate, feed ratios, loss ratios, carcass weight, etc.);
b. Discussing/reviewing and technical validating FBS preliminary results and related reports;
c. Regularly monitoring the progress of FBS compilation and reporting to the National Stocks Monitoring Committee;
d. Giving any technical guidance to the FBS Core Team, in order to improve the quality of FBS.

The members of FBS_TWG must meet the following qualifications:

a. Good knowledge of the National Agricultural Statistics System;
b. Good knowledge of Microsoft Office Package, particularly Word, Excel, and Power Point); and
c. Basic knowledge in statistics.

## Annex 8 – Composition, membership and role of FBS Technical Working Group (FBS_TWG)

| No | Area | Name of Institution | Position | Role |
|---|---|---|---|---|
| **FBS_TWG Chairs** | | | | |
| 1 | Crops Statistics | MoA | Chief Agricultural Statistics &Data Analyst | Chair |
| 2 | Agriculture Statistics | ZamStats | Assistant Director/Head of Agricultural Statistics | Co-Chair |
| **FBS CORE TEAM MEMBERS** | | | | |
| 3 | Crops Statistics | MoA | Principal Agricultural Economist | FBS Focal Point and FBS Core Team Chair |
| 4 | Agriculture Statistics | ZamStats | Principal Statistician | FBS Focal Point and FBS Core Team Co-chair |
| 5 | Crops Statistics | MoA | Economist | Member |
| 6 | Trade Statistics | ZamStats | Statistician | Member |
| 7 | Fisheries and Livestock Statistics | MFL | Principal Statistician | Member |
| **FBS_TTWG focal points** | | | | |
| 8 | Crop Statistics | MoA | Economist | FBS_TTWG1 Focal Point |
| 9 | Fisheries Statistics | MFL | Research Officer | FBS_TTWG2 Focal Point |
| 10 | Livestock Statistics | MFL | Senior Economist | FBS_TTWG3 Focal Point |
| 11 | Trade Statistics | ZamStats | Statistician | FBS_TTWG4 Focal Point |
| **OTHERS** | | | | |
| 12 | Nutrition | MoA | Principal Food and Nutrition Officer | Member |
| 13 | Industrial Production Statistics | ZamStats | Principal Statistician | Member |
| 14 | National Accounts Statistics | Zamstats | Statistician | Member |
| 15 | Food Consumption | ZamStats | Statistician | Member |
| 16 | Crop Statistics | MoA | Senior Agricultural Eocnomist | Member |

# Annex 9: Zambia FBS detailed results – Supply of calories, proteins and fats (2019 – 2023)

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | 1000 Metric Tons | | | | | | | | | | | Kg. | Kcal | grams | grams |
| **Grand total** | | | | | | | | | | | | | **2 322** | **48** | **48** |
| **Vegetal prod.** | | | | | | | | | | | | | **2 223** | **41** | **42** |
| **Animal prod.** | | | | | | | | | | | | | **99** | **6** | **6** |
| **Cereals (excl. beer)** | **2 242** | **140** | **145** | **-415** | **2 653** | **147** | **132** | **284** | **41** | **1** | **2 048** | **118** | **1 030** | **26** | **10** |
| Wheat and products | 151 | 52 | 74 | -100 | 229 | 0 | 6 | 0 | 2 | 0 | 220 | 12.7 | 95 | 3 | 0 |
| Barley and products | 8 | 9 | 1 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize and products | 2 004 | 17 | 52 | -314 | 2 283 | 111 | 120 | 284 | 35 | 1 | 1 732 | 99.7 | 899 | 22 | 10 |
| Rye and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oats and products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Millet and products | 25 | 4 | 5 | 0 | 25 | 13 | 2 | 0 | 0 | 0 | 9 | 0.5 | 4 | 0 | 0 |
| Sorghum and products | 23 | 1 | 1 | 0 | 24 | 7 | 2 | 0 | 0 | 0 | 14 | 0.8 | 7 | 0 | 0 |
| Rice & Prod (Milled Equivalent) | 30 | 56 | 12 | -2 | 76 | 0 | 2 | 0 | 3 | 0 | 71 | 4.1 | 25 | 1 | 0 |
| Cereals, Others & Products | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| **Starchy roots** | **4 203** | **45** | **1** | **25** | **4 222** | **0** | **423** | **0** | **5** | **-1** | **3 794** | **218.3** | **564** | **5** | **1** |
| Potatoes and products | 53 | 25 | 0 | -9 | 86 | 0 | 6 | 0 | 5 | 0 | 75 | 4.3 | 8 | 0 | 0 |
| Cassava and products | 4 037 | 20 | 0 | 34 | 4 022 | 0 | 407 | 0 | 0 | -1 | 3 616 | 208.0 | 537 | 5 | 1 |
| Sweet potatoes | 113 | 0 | 0 | 0 | 113 | 0 | 10 | 0 | 0 | 0 | 103 | 5.9 | 19 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Yams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Roots & Tubers, Other & Prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **1 762** | **0** | **0** | **-1** | **1 763** | **1 763** | **0** | **0** | **0** | **0** | **0** | **0.0** | **0** | **0** | **0** |
| Sugar cane | 1 762 | 0 | 0 | -1 | 1 763 | 1 763 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar Beets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **992** | **5** | **278** | **382** | **337** | **12** | **0** | **0** | **0** | **0** | **325** | **18.7** | **173** | **0** | **0** |
| Sugar non-centrifugal | 193 | 0 | 193 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar & Prod. (raw equivalent) | 798 | 5 | 84 | 382 | 337 | 12 | 0 | 0 | 0 | 0 | 325 | 18.7 | 173 | 0 | 0 |
| Sweeteners, other & prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Honey | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **80** | **0** | **11** | **0** | **69** | **0** | **3** | **0** | **6** | **0** | **60** | **3.5** | **31** | **2** | **0** |
| Beans, Dry & Products | 62 | 0 | 1 | 0 | 60 | 0 | 3 | 0 | 6 | 0 | 51 | 3.0 | 26 | 2 | 0 |
| Peas, Dry & Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pulses, Other and products | 18 | 0 | 10 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 0.5 | 5 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **3** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **3** | **0.1** | **1** | **0** | **0** |
| Nuts and products | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **545** | **6** | **40** | **-19** | **529** | **232** | **29** | **0** | **39** | **5** | **225** | **12.9** | **147** | **7** | **11** |
| Soyabeans & Products | 282 | 3 | 35 | -22 | 272 | 193 | 6 | 0 | 20 | 0 | 54 | 3.1 | 32 | 3 | 1 |
| Groundnuts (Shelled Eq) | 131 | 2 | 3 | 3 | 126 | 9 | 13 | 0 | 19 | 0 | 85 | 4.9 | 49 | 2 | 4 |

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Sunflower seed | 34 | 0 | 0 | 0 | 34 | 29 | 0 | 0 | 0 | 0 | 5 | 0.3 | 2 | 0 | 0 |
| Rape and Mustardseed | 93 | 0 | 1 | 0 | 92 | 0 | 10 | 0 | 0 | 5 | 78 | 4.5 | 61 | 2 | 6 |
| Coconuts - Incl Copra | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesame seed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernels | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olives (including preserved) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops, Other | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 3 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **52** | **116** | **14** | **0** | **154** | **1** | **0** | **0** | **0** | **26** | **127** | **7.3** | **178** | **0** | **20** |
| Soyabean Oil | 36 | 26 | 1 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 60 | 3.5 | 84 | 0 | 9 |
| Groundnut Oil | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 4 | 0 | 0 |
| Sunflowerseed Oil | 7 | 3 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 0.6 | 14 | 0 | 2 |
| Rape and Mustard Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cottonseed Oil | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 6 | 0 | 1 |
| Palmkernel Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palm Oil | 1 | 76 | 7 | 0 | 70 | 1 | 0 | 0 | 0 | 26 | 43 | 2.5 | 62 | 0 | 7 |
| Coconut Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesameseed Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olive & Residue Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize Germ Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops Oil, Other | 1 | 10 | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 0.4 | 8 | 0 | 1 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **411** | **106** | **4** | **0** | **513** | **0** | **41** | **0** | **0** | **0** | **472** | **27.1** | **21** | **1** | **0** |
| Tomatoes and products | 176 | 16 | 0 | 0 | 192 | 0 | 18 | 0 | 0 | 0 | 174 | 10.0 | 5 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Onions, Dry | 39 | 3 | 0 | 0 | 42 | 0 | 4 | 0 | 0 | 0 | 38 | 2.2 | 2 | 0 | 0 |
| Vegetables, Other & Prod. | 195 | 87 | 4 | 0 | 279 | 0 | 19 | 0 | 0 | 0 | 259 | 14.9 | 14 | 1 | 0 |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **189** | **54** | **3** | **-8** | **247** | **0** | **20** | **0** | **0** | **0** | **227** | **13.1** | **21** | **0** | **0** |
| Oranges, Tang-Mand & Prod. | 15 | 11 | 1 | -10 | 35 | 0 | 1 | 0 | 0 | 0 | 33 | 1.9 | 2 | 0 | 0 |
| Lemons, Limes and products | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 0 | 0 | 0 |
| Grapefruit and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Citrus Fruit nes & prod | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 0 | 0 | 0 |
| Bananas | 18 | 5 | 0 | 0 | 23 | 0 | 2 | 0 | 0 | 0 | 20 | 1.2 | 4 | 0 | 0 |
| Plantains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Apples and products | 0 | 8 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 | 0.4 | 1 | 0 | 0 |
| Pineapples and products | 4 | 6 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 0.6 | 1 | 0 | 0 |
| Dates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Grapes and products (excl wine) | 0 | 9 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 0 | 8 | 0.5 | 1 | 0 | 0 |
| Fruits, Other & Products | 149 | 11 | 2 | 1 | 157 | 0 | 15 | 0 | 0 | 0 | 142 | 8.2 | 12 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **1** | **3** | **3** | **0** | **1** | **0** | **0** | **0** | **0** | **0** | **1** | **0.1** | **0** | **0** | **0** |
| Coffee and products | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cocoa Beans and products | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Tea (including mate) | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0** | **2** | **0** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **1** | **0** | **0** |
| Pepper | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pimento | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Cloves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Spices, other | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **803** | **61** | **7** | **0** | **858** | **0** | **0** | **0** | **0** | **4** | **854** | **49.1** | **54** | **0** | **0** |
| Wine | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 0 | 0 | 0 |
| Barley Beer | 234 | 49 | 0 | 0 | 283 | 0 | 0 | 0 | 0 | 0 | 283 | 16.3 | 19 | 0 | 0 |
| Beverages, fermented | 564 | 4 | 0 | 0 | 568 | 0 | 0 | 0 | 0 | 0 | 568 | 32.7 | 35 | 0 | 0 |
| Beverages, alcoholic | 5 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Alcohol, non food | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **138** | **16** | **5** | **0** | **149** | **0** | **0** | **0** | **0** | **1** | **148** | **8.5** | **49** | **3** | **3** |
| Meat & Products, Bovine | 49 | 1 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 50 | 2.9 | 15 | 1 | 1 |
| Meat & Prod, Sheep & Goat | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.9 | 3 | 0 | 0 |
| Meat & Products, Pig | 43 | 1 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 1 | 44 | 2.5 | 21 | 1 | 2 |
| Meat & Products, Poultry | 30 | 14 | 5 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 39 | 2.2 | 10 | 1 | 0 |
| Meat & Products, Other Anim. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **13** | **0** | **0** | **0** | **13** | **0** | **0** | **0** | **0** | **0** | **13** | **0.8** | **2** | **0** | **0** |
| Offals, Edible | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 13 | 0.8 | 2 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **5** | **1** | **0** | **0** | **6** | **0** | **0** | **0** | **0** | **0** | **5** | **0.3** | **7** | **0** | **1** |
| Fats, Animals, Raw | 5 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 7 | 0 | 1 |
| Cream | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2019 | | | | | | | | | | | | Population ('000): 17 381 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **88** | **31** | **15** | **-4** | **107** | **0** | **4** | **0** | **0** | **0** | **103** | **5.9** | **22** | **1** | **1** |
| Milk & Prod (Excluding Butter) | 88 | 31 | 15 | -4 | 107 | 0 | 4 | 0 | 0 | 0 | 103 | 5.9 | 22 | 1 | 1 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **19** | **0** | **1** | **0** | **18** | **0** | **0** | **0** | **0** | **0** | **18** | **1.0** | **4** | **0** | **0** |
| Eggs and products | 19 | 0 | 1 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 18 | 1.0 | 4 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Fish & sea food** | **130** | **8** | **0** | **0** | **138** | **0** | **0** | **0** | **0** | **0** | **138** | **8** | **15** | **2** | **1** |
| Freshwater fish | 130 | 8 | 0 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 138 | 7.9 | 15 | 2 | 1 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0** | **17** | **1** | **0** | **16** | **0** | **0** | **0** | **0** | **0** | **16** | **0.9** | **2** | **0** | **0** |
| Infant food | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 1 | 0 | 0 |
| Miscellaneous | 0 | 16 | 1 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.8 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | 1000 Metric Tons | | | | | | | | | | | Kg. | Kcal | grams | grams |
| **Grand total** | | | | | | | | | | | | | **2 317** | **48** | **46** |
| **Vegetal prod.** | | | | | | | | | | | | | **2 228** | **41** | **41** |
| **Animal prod.** | | | | | | | | | | | | | **89** | **6** | **6** |
| **Cereals (excl. beer)** | **3 691** | **224** | **210** | **995** | **2 709** | **137** | **113** | **284** | **42** | **4** | **2 129** | **119** | **1 040** | **26** | **11** |
| Wheat and products | 192 | 72 | 35 | -10 | 239 | 0 | 8 | 0 | 2 | 2 | 227 | 12.7 | 96 | 3 | 0 |
| Barley and products | 11 | 4 | 3 | 0 | 12 | 11 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize and products | 3 387 | 45 | 153 | 978 | 2 302 | 94 | 100 | 284 | 37 | 2 | 1 784 | 99.8 | 901 | 22 | 11 |
| Rye and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oats and products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Millet and products | 45 | 9 | 9 | 0 | 45 | 26 | 2 | 0 | 1 | 0 | 17 | 1.0 | 8 | 0 | 0 |
| Sorghum and products | 20 | 0 | 0 | 0 | 20 | 6 | 2 | 0 | 1 | 0 | 11 | 0.6 | 6 | 0 | 0 |
| Rice & Prod (Milled Equivalent) | 35 | 91 | 8 | 27 | 91 | 0 | 2 | 0 | 2 | 0 | 87 | 4.9 | 29 | 1 | 0 |
| Cereals, Others & Products | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| **Starchy roots** | **4 340** | **44** | **2** | **15** | **4 367** | **0** | **424** | **0** | **8** | **0** | **3 935** | **220.0** | **568** | **5** | **1** |
| Potatoes and products | 80 | 16 | 1 | -15 | 110 | 0 | 9 | 0 | 8 | 0 | 93 | 5.2 | 10 | 0 | 0 |
| Cassava and products | 4 115 | 29 | 1 | 30 | 4 112 | 0 | 408 | 0 | 0 | 0 | 3 704 | 207.1 | 534 | 5 | 1 |
| Sweet potatoes | 145 | 0 | 0 | 0 | 145 | 0 | 7 | 0 | 0 | 0 | 137 | 7.7 | 24 | 0 | 0 |
| Yams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Roots & Tubers, Other & Prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **1 524** | **0** | **0** | **-1** | **1 525** | **1 525** | **0** | **0** | **0** | **0** | **0** | **0.0** | **0** | **0** | **0** |
| Sugar cane | 1524 | 0 | 0 | -1 | 1525 | 1525 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar Beets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **1 039** | **2** | **257** | **430** | **355** | **16** | **0** | **0** | **0** | **10** | **328** | **18.4** | **177** | **0** | **0** |
| Sugar non-centrifugal | 208 | 0 | 195 | 0 | 12 | 0 | 0 | 0 | 0 | 10 | 2 | 0.1 | 1 | 0 | 0 |
| Sugar & Prod. (raw equivalent) | 831 | 2 | 61 | 430 | 343 | 16 | 0 | 0 | 0 | 0 | 326 | 18.3 | 176 | 0 | 0 |
| Sweeteners, other & prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Honey | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **79** | **4** | **14** | **1** | **68** | **0** | **3** | **0** | **5** | **0** | **60** | **3.3** | **30** | **2** | **0** |
| Beans, Dry & Products | 49 | 1 | 1 | 1 | 49 | 0 | 3 | 0 | 5 | 0 | 41 | 2.3 | 20 | 1 | 0 |
| Peas, Dry & Products | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| Pulses, Other and products | 30 | 0 | 13 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 9 | 1 | 0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **3** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **3** | **0.2** | **1** | **0** | **0** |
| Nuts and products | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **582** | **11** | **63** | **-30** | **560** | **260** | **30** | **0** | **34** | **5** | **231** | **12.9** | **145** | **7** | **10** |
| Soyabeans & Products | 297 | 8 | 58 | -33 | 281 | 202 | 6 | 0 | 19 | 0 | 54 | 3.0 | 31 | 3 | 1 |
| Groundnuts (Shelled Eq) | 127 | 2 | 2 | 4 | 123 | 10 | 13 | 0 | 15 | 0 | 86 | 4.8 | 48 | 2 | 4 |
| Sunflower seed | 50 | 0 | 0 | 0 | 50 | 43 | 0 | 0 | 0 | 0 | 7 | 0.4 | 3 | 0 | 0 |
| Rape and Mustardseed | 95 | 0 | 2 | 0 | 94 | 0 | 11 | 0 | 0 | 5 | 78 | 4.4 | 59 | 2 | 5 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Coconuts - Incl Copra | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesame seed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernels | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olives (including preserved) | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops, Other | 12 | 0 | 0 | 0 | 12 | 6 | 0 | 0 | 0 | 0 | 6 | 0.3 | 4 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **58** | **110** | **16** | **0** | **152** | **2** | **0** | **0** | **0** | **21** | **129** | **7.2** | **174** | **0** | **19** |
| Soyabean Oil | 37 | 39 | 1 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 75 | 4.2 | 101 | 0 | 11 |
| Groundnut Oil | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 3 | 0 | 0 |
| Sunflowerseed Oil | 11 | 1 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 11 | 0.6 | 15 | 0 | 2 |
| Rape and Mustard Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cottonseed Oil | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernel Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1 | 0 | 0 |
| Palm Oil | 2 | 61 | 8 | 0 | 55 | 1 | 0 | 0 | 0 | 21 | 33 | 1.8 | 45 | 0 | 5 |
| Coconut Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesameseed Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olive & Residue Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize Germ Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops Oil, Other | 3 | 9 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 7 | 0.4 | 9 | 0 | 1 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **421** | **35** | **8** | **0** | **447** | **0** | **42** | **0** | **0** | **0** | **404** | **22.6** | **19** | **1** | **0** |
| Tomatoes and products | 181 | 23 | 6 | 0 | 198 | 0 | 18 | 0 | 0 | 0 | 179 | 10.0 | 5 | 0 | 0 |
| Onions, Dry | 39 | 4 | 0 | 0 | 43 | 0 | 4 | 0 | 0 | 0 | 39 | 2.2 | 2 | 0 | 0 |
| Vegetables, Other & Prod. | 200 | 8 | 2 | 0 | 206 | 0 | 20 | 0 | 0 | 0 | 186 | 10.4 | 12 | 1 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **204** | **46** | **14** | **-2** | **238** | **0** | **21** | **0** | **0** | **0** | **217** | **12.1** | **19** | **0** | **0** |
| Oranges, Tang-Mand & Prod. | 14 | 5 | 1 | -5 | 23 | 0 | 1 | 0 | 0 | 0 | 21 | 1.2 | 1 | 0 | 0 |
| Lemons, Limes and products | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 0 | 0 | 0 |
| Grapefruit and products | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Citrus Fruit nes & prod | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 0 | 0 | 0 |
| Bananas | 18 | 5 | 0 | 0 | 23 | 0 | 2 | 0 | 0 | 0 | 21 | 1.2 | 4 | 0 | 0 |
| Plantains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Apples and products | 0 | 10 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 | 0.5 | 1 | 0 | 0 |
| Pineapples and products | 4 | 6 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 9 | 0.5 | 1 | 0 | 0 |
| Dates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Grapes and products (excl wine) | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0.1 | 0 | 0 | 0 |
| Fruits, Other & Products | 163 | 12 | 10 | 3 | 162 | 0 | 15 | 0 | 0 | 0 | 146 | 8.2 | 12 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **2** | **4** | **3** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **3** | **0.2** | **0** | **0** | **0** |
| Coffee and products | 2 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 0 | 0 | 0 |
| Cocoa Beans and products | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Tea (including mate) | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **1** | **2** | **1** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **1** | **0** | **0** |
| Pepper | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pimento | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cloves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Spices, other | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **773** | **79** | **5** | **0** | **846** | **0** | **0** | **0** | **0** | **5** | **841** | **47.0** | **52** | **0** | **0** |
| Wine | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 29 | 1.6 | 3 | 0 | 0 |
| Barley Beer | 234 | 43 | 0 | 0 | 277 | 0 | 0 | 0 | 0 | 0 | 277 | 15.5 | 18 | 0 | 0 |
| Beverages, fermented | 535 | 0 | 0 | 0 | 535 | 0 | 0 | 0 | 0 | 0 | 535 | 29.9 | 31 | 0 | 0 |
| Beverages, alcoholic | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Alcohol, non food | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **131** | **19** | **7** | **0** | **143** | **0** | **0** | **0** | **0** | **0** | **143** | **8.0** | **46** | **3** | **3** |
| Meat & Products, Bovine | 50 | 5 | 1 | 0 | 54 | 0 | 0 | 0 | 0 | 0 | 53 | 3.0 | 16 | 1 | 1 |
| Meat & Prod, Sheep & Goat | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.8 | 3 | 0 | 0 |
| Meat & Products, Pig | 38 | 1 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 38 | 2.2 | 18 | 1 | 2 |
| Meat & Products, Poultry | 28 | 13 | 5 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 36 | 2.0 | 9 | 1 | 0 |
| Meat & Products, Other Anim. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **13** | **0** | **0** | **0** | **13** | **0** | **0** | **0** | **0** | **0** | **13** | **0.7** | **2** | **0** | **0** |
| Offals, Edible | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 13 | 0.7 | 2 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **5** | **1** | **0** | **0** | **5** | **0** | **0** | **0** | **0** | **0** | **5** | **0.3** | **6** | **0** | **1** |
| Fats, Animals, Raw | 5 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 6 | 0 | 1 |
| Cream | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **84** | **18** | **19** | **-4** | **87** | **0** | **4** | **0** | **0** | **0** | **83** | **4.6** | **16** | **1** | **1** |
| Milk & Prod (Excluding Butter) | 84 | 18 | 19 | -4 | 87 | 0 | 4 | 0 | 0 | 0 | 83 | 4.6 | 16 | 1 | 1 |

| ZAMBIA FOOD BALANCE SHEETS 2020 | | | | | | | | | | | | Population ('000): 17 885 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Eggs** | **18** | **0** | **1** | **0** | **17** | **0** | **0** | **0** | **0** | **0** | **17** | **0.9** | **4** | **0** | **0** |
| Eggs and products | 18 | 0 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 4 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Fish & sea food** | **141** | **3** | **0** | **0** | **144** | **0** | **0** | **0** | **0** | **0** | **144** | **8** | **15** | **2** | **1** |
| Freshwater fish | 141 | 3 | 0 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 144 | 8.0 | 15 | 2 | 1 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0** | **17** | **2** | **0** | **15** | **0** | **0** | **0** | **0** | **0** | **15** | **0.8** | **2** | **0** | **0** |
| Infant food | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| Miscellaneous | 0 | 15 | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 0.8 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | 1000 Metric Tons | | | | | | | | | | | Kg. | Kcal | grams | grams |
| **Grand total** | | | | | | | | | | | | | **2 384** | **49** | **55** |
| **Vegetal prod.** | | | | | | | | | | | | | **2 302** | **43** | **49** |
| **Animal prod.** | | | | | | | | | | | | | **82** | **6** | **6** |
| **Cereals (excl. beer)** | **3 954** | **245** | **783** | **432** | **2 984** | **132** | **128** | **284** | **45** | **4** | **2 391** | **130** | **1 133** | **27** | **11** |
| Wheat and products | 206 | 86 | 55 | -30 | 267 | 0 | 10 | 0 | 3 | 1 | 253 | 13.7 | 104 | 3 | 0 |
| Barley and products | 9 | 5 | 3 | 0 | 11 | 10 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Maize and products | 3 620 | 36 | 692 | 423 | 2 541 | 105 | 109 | 284 | 38 | 3 | 2 002 | 108.8 | 982 | 23 | 11 |
| Rye and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oats and products | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| Millet and products | 35 | 13 | 26 | 0 | 22 | 11 | 3 | 0 | 1 | 0 | 7 | 0.4 | 3 | 0 | 0 |
| Sorghum and products | 18 | 0 | 0 | 0 | 18 | 5 | 3 | 0 | 0 | 0 | 10 | 0.5 | 5 | 0 | 0 |
| Rice & Prod (Milled Equivalent) | 66 | 102 | 6 | 40 | 122 | 0 | 3 | 0 | 3 | 0 | 116 | 6.3 | 38 | 1 | 0 |
| Cereals, Others & Products | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| **Starchy roots** | **4 076** | **59** | **9** | **15** | **4 112** | **0** | **402** | **0** | **6** | **0** | **3 704** | **201.3** | **521** | **5** | **1** |
| Potatoes and products | 62 | 23 | 5 | -30 | 110 | 0 | 8 | 0 | 6 | 0 | 96 | 5.2 | 10 | 0 | 0 |
| Cassava and products | 3 799 | 36 | 2 | 44 | 3 789 | 0 | 380 | 0 | 0 | 0 | 3 409 | 185.2 | 477 | 5 | 1 |
| Sweet potatoes | 214 | 0 | 0 | 0 | 213 | 0 | 14 | 0 | 0 | 0 | 199 | 10.8 | 34 | 0 | 0 |
| Yams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Roots & Tubers, Other & Prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **1 131** | **0** | **0** | **-1** | **1 132** | **1 132** | **0** | **0** | **0** | **0** | **0** | **0.0** | **0** | **0** | **0** |
| Sugar cane | 1 131 | 0 | 0 | -1 | 1 132 | 1 132 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar Beets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **928** | **2** | **256** | **321** | **353** | **48** | **0** | **0** | **0** | **0** | **305** | **16.6** | **163** | **0** | **0** |
| Sugar non-centrifugal | 124 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar & Prod. (raw equivalent) | 803 | 2 | 131 | 321 | 353 | 48 | 0 | 0 | 0 | 0 | 305 | 16.6 | 163 | 0 | 0 |
| Sweeteners, other & prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Honey | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **83** | **0** | **24** | **1** | **59** | **0** | **3** | **0** | **5** | **0** | **51** | **2.8** | **26** | **2** | **0** |
| Beans, Dry & Products | 55 | 0 | 13 | 1 | 41 | 0 | 3 | 0 | 5 | 0 | 33 | 1.8 | 16 | 1 | 0 |
| Peas, Dry & Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pulses, Other and products | 29 | 0 | 11 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 18 | 1.0 | 10 | 1 | 0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **3** | **0** | **0** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **3** | **0.1** | **1** | **0** | **0** |
| Nuts and products | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **770** | **39** | **212** | **-112** | **709** | **376** | **37** | **0** | **47** | **1** | **249** | **13.5** | **152** | **8** | **12** |
| Soyabeans & Products | 411 | 38 | 180 | -112 | 381 | 287 | 9 | 0 | 28 | 0 | 56 | 3.1 | 31 | 3 | 1 |
| Groundnuts (Shelled Eq) | 174 | 1 | 21 | -1 | 154 | 14 | 17 | 0 | 19 | 0 | 104 | 5.6 | 57 | 2 | 5 |
| Sunflower seed | 80 | 0 | 10 | 0 | 70 | 69 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Rape and Mustardseed | 98 | 0 | 0 | 0 | 98 | 0 | 10 | 0 | 0 | 1 | 87 | 4.8 | 64 | 3 | 6 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Coconuts - Incl Copra | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesame seed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernels | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olives (including preserved) | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops, Other | 7 | 0 | 0 | 0 | 7 | 6 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **78** | **127** | **10** | **0** | **195** | **0** | **0** | **0** | **0** | **34** | **161** | **8.7** | **211** | **0** | **25** |
| Soyabean Oil | 52 | 27 | 1 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 79 | 4.3 | 103 | 0 | 12 |
| Groundnut Oil | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 5 | 0 | 1 |
| Sunflowerseed Oil | 17 | 1 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 23 | 0 | 3 |
| Rape and Mustard Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cottonseed Oil | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernel Oil | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 1 | 0 | 0 |
| Palm Oil | 0 | 89 | 4 | 0 | 85 | 0 | 0 | 0 | 0 | 32 | 53 | 2.9 | 71 | 0 | 8 |
| Coconut Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesameseed Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olive & Residue Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize Germ Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops Oil, Other | 2 | 9 | 2 | 0 | 9 | 0 | 0 | 0 | 0 | 2 | 7 | 0.4 | 8 | 0 | 1 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **436** | **17** | **25** | **0** | **429** | **0** | **44** | **0** | **0** | **1** | **384** | **20.9** | **18** | **1** | **0** |
| Tomatoes and products | 187 | 8 | 21 | 0 | 173 | 0 | 19 | 0 | 0 | 1 | 154 | 8.4 | 4 | 0 | 0 |
| Onions, Dry | 42 | 2 | 0 | 0 | 45 | 0 | 4 | 0 | 0 | 0 | 40 | 2.2 | 2 | 0 | 0 |
| Vegetables, Other & Prod. | 207 | 7 | 4 | -1 | 211 | 0 | 21 | 0 | 0 | 0 | 190 | 10.3 | 12 | 1 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **213** | **48** | **38** | **-1** | **224** | **0** | **21** | **0** | **0** | **0** | **203** | **11.0** | **20** | **0** | **0** |
| Oranges, Tang-Mand & Prod. | 11 | 7 | 1 | -1 | 17 | 0 | 1 | 0 | 0 | 0 | 16 | 0.8 | 1 | 0 | 0 |
| Lemons, Limes and products | 3 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 0 | 0 | 0 |
| Grapefruit and products | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Citrus Fruit nes & prod | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 0 | 0 | 0 |
| Bananas | 17 | 7 | 0 | 0 | 24 | 0 | 2 | 0 | 0 | 0 | 22 | 1.2 | 4 | 0 | 0 |
| Plantains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Apples and products | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 11 | 0.6 | 1 | 0 | 0 |
| Pineapples and products | 4 | 6 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 10 | 0.5 | 1 | 0 | 0 |
| Dates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Grapes and products (excl wine) | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 3 | 0.1 | 0 | 0 | 0 |
| Fruits, Other & Products | 175 | 8 | 33 | 0 | 150 | 0 | 16 | 0 | 0 | 0 | 134 | 7.3 | 13 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **4** | **3** | **5** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **0** | **0** | **0** |
| Coffee and products | 4 | 2 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| Cocoa Beans and products | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Tea (including mate) | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **5** | **2** | **6** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **1** | **0** | **0** |
| Pepper | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pimento | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cloves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Spices, other | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **813** | **68** | **5** | **0** | **876** | **0** | **0** | **0** | **0** | **6** | **871** | **47.3** | **53** | **0** | **0** |
| Wine | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 0 | 0 | 0 |
| Barley Beer | 286 | 58 | 0 | 0 | 344 | 0 | 0 | 0 | 0 | 0 | 344 | 18.7 | 22 | 0 | 0 |
| Beverages, fermented | 524 | 1 | 0 | 0 | 525 | 0 | 0 | 0 | 0 | 0 | 525 | 28.5 | 31 | 0 | 0 |
| Beverages, alcoholic | 3 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Alcohol, non food | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 6 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **138** | **18** | **7** | **0** | **149** | **0** | **0** | **0** | **0** | **1** | **148** | **8.1** | **45** | **3** | **3** |
| Meat & Products, Bovine | 57 | 3 | 1 | 0 | 59 | 0 | 0 | 0 | 0 | 0 | 59 | 3.2 | 16 | 1 | 1 |
| Meat & Prod, Sheep & Goat | 16 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 16 | 0.8 | 3 | 0 | 0 |
| Meat & Products, Pig | 37 | 2 | 1 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 38 | 2.1 | 18 | 1 | 2 |
| Meat & Products, Poultry | 29 | 13 | 6 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 36 | 2.0 | 8 | 1 | 0 |
| Meat & Products, Other Anim. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **14** | **0** | **0** | **0** | **14** | **0** | **0** | **0** | **0** | **0** | **14** | **0.8** | **2** | **0** | **0** |
| Offals, Edible | 14 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 14 | 0.8 | 2 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **5** | **0** | **0** | **0** | **5** | **0** | **0** | **0** | **0** | **0** | **5** | **0.3** | **6** | **0** | **1** |
| Fats, Animals, Raw | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 6 | 0 | 1 |
| Cream | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **96** | **22** | **63** | **-5** | **60** | **0** | **5** | **0** | **0** | **0** | **55** | **3.0** | **9** | **0** | **1** |
| Milk & Prod (Excluding Butter) | 96 | 22 | 63 | -5 | 60 | 0 | 5 | 0 | 0 | 0 | 55 | 3.0 | 9 | 0 | 1 |

| ZAMBIA FOOD BALANCE SHEETS 2021 | | | | | | | | | | | | Population ('000): 18 401 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Eggs** | **18** | **0** | **1** | **0** | **17** | **0** | **0** | **0** | **0** | **0** | **17** | **0.9** | **4** | **0** | **0** |
| Eggs and products | 18 | 0 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 4 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Fish & sea food** | **159** | **2** | **1** | **0** | **160** | **0** | **0** | **0** | **0** | **0** | **160** | **9** | **16** | **3** | **1** |
| Freshwater fish | 159 | 2 | 1 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 160 | 8.7 | 16 | 3 | 1 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0** | **16** | **2** | **0** | **14** | **0** | **0** | **0** | **0** | **0** | **14** | **0.8** | **2** | **0** | **0** |
| Infant food | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 1 | 0 | 0 |
| Miscellaneous | 0 | 15 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 13 | 0.7 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | 1000 Metric Tons | | | | | | | | | | | Kg. | Kcal | grams | grams |
| **Grand total** | | | | | | | | | | | | | **2 310** | **51** | **53** |
| **Vegetal prod.** | | | | | | | | | | | | | **2 215** | **43** | **46** |
| **Animal prod.** | | | | | | | | | | | | | **95** | **8** | **7** |
| **Cereals (excl. beer)** | **3 063** | **146** | **627** | **-572** | **3 155** | **168** | **100** | **298** | **39** | **3** | **2 547** | **130** | **1 132** | **27** | **11** |
| Wheat and products | 235 | 62 | 64 | -75 | 308 | 0 | 14 | 0 | 3 | 2 | 289 | 14.7 | 111 | 3 | 0 |
| Barley and products | 20 | 9 | 9 | 0 | 20 | 19 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Maize and products | 2 706 | 16 | 543 | -498 | 2 677 | 131 | 80 | 298 | 34 | 1 | 2 133 | 108.8 | 981 | 23 | 11 |
| Rye and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oats and products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Millet and products | 24 | 0 | 0 | 0 | 24 | 13 | 2 | 0 | 0 | 0 | 9 | 0.4 | 4 | 0 | 0 |
| Sorghum and products | 15 | 0 | 0 | 0 | 15 | 4 | 2 | 0 | 0 | 0 | 8 | 0.4 | 4 | 0 | 0 |
| Rice & Prod (Milled Equivalent) | 62 | 57 | 10 | 1 | 108 | 0 | 1 | 0 | 1 | 0 | 105 | 5.4 | 33 | 1 | 0 |
| Cereals, Others & Products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| **Starchy roots** | **3 683** | **34** | **2** | **41** | **3 673** | **0** | **356** | **0** | **7** | **0** | **3 310** | **168.8** | **436** | **4** | **1** |
| Potatoes and products | 52 | 4 | 1 | -19 | 75 | 0 | 5 | 0 | 7 | 0 | 62 | 3.2 | 6 | 0 | 0 |
| Cassava and products | 3 498 | 30 | 0 | 61 | 3 467 | 0 | 341 | 0 | 0 | 0 | 3 126 | 159.4 | 411 | 4 | 1 |
| Sweet potatoes | 132 | 0 | 0 | 0 | 132 | 0 | 10 | 0 | 0 | 0 | 122 | 6.2 | 19 | 0 | 0 |
| Yams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Roots & Tubers, Other & Prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **846** | **0** | **0** | **0** | **846** | **846** | **0** | **0** | **0** | **0** | **0** | **0.0** | **0** | **0** | **0** |
| Sugar cane | 846 | 0 | 0 | 0 | 846 | 846 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar Beets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **749** | **21** | **249** | **160** | **360** | **26** | **0** | **0** | **0** | **7** | **327** | **16.7** | **163** | **0** | **0** |
| Sugar non-centrifugal | 143 | 0 | 133 | 0 | 10 | 0 | 0 | 0 | 0 | 7 | 3 | 0.1 | 1 | 0 | 0 |
| Sugar & Prod. (raw equivalent) | 604 | 21 | 114 | 160 | 350 | 26 | 0 | 0 | 0 | 0 | 325 | 16.6 | 162 | 0 | 0 |
| Sweeteners, other & prod. | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Honey | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **84** | **0** | **14** | **0** | **70** | **0** | **3** | **0** | **6** | **0** | **61** | **3.1** | **28** | **2** | **0** |
| Beans, Dry & Products | 60 | 0 | 9 | 0 | 51 | 0 | 3 | 0 | 6 | 0 | 42 | 2.1 | 18 | 1 | 0 |
| Peas, Dry & Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pulses, Other and products | 24 | 0 | 5 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 19 | 1.0 | 10 | 1 | 0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **4** | **1** | **1** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **3** | **0.2** | **1** | **0** | **0** |
| Nuts and products | 4 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **871** | **5** | **26** | **18** | **832** | **437** | **39** | **0** | **57** | **0** | **299** | **15.2** | **169** | **9** | **13** |
| Soyabeans & Products | 475 | 2 | 18 | 20 | 439 | 333 | 10 | 0 | 36 | 0 | 60 | 3.1 | 31 | 3 | 1 |
| Groundnuts (Shelled Eq) | 190 | 0 | 5 | -3 | 188 | 15 | 19 | 0 | 21 | 0 | 133 | 6.8 | 68 | 3 | 6 |
| Sunflower seed | 83 | 0 | 1 | 0 | 82 | 71 | 0 | 0 | 0 | 0 | 11 | 0.6 | 5 | 0 | 0 |
| Rape and Mustardseed | 105 | 0 | 0 | 0 | 105 | 0 | 10 | 0 | 0 | 0 | 94 | 4.8 | 65 | 3 | 6 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Coconuts - Incl Copra | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesame seed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernels | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olives (including preserved) | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops, Other | 17 | 0 | 1 | 0 | 17 | 17 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **90** | **95** | **16** | **0** | **169** | **0** | **0** | **0** | **0** | **18** | **151** | **7.7** | **187** | **0** | **21** |
| Soyabean Oil | 60 | 33 | 0 | 0 | 93 | 0 | 0 | 0 | 0 | 0 | 93 | 4.7 | 115 | 0 | 13 |
| Groundnut Oil | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 5 | 0 | 1 |
| Sunflowerseed Oil | 18 | 0 | 3 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.8 | 19 | 0 | 2 |
| Rape and Mustard Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cottonseed Oil | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 2 | 0 | 0 |
| Palmkernel Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1 | 0 | 0 |
| Palm Oil | 0 | 52 | 6 | 0 | 46 | 0 | 0 | 0 | 0 | 18 | 29 | 1.5 | 36 | 0 | 4 |
| Coconut Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesameseed Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olive & Residue Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize Germ Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops Oil, Other | 6 | 10 | 7 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 0.4 | 9 | 0 | 1 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **470** | **14** | **32** | **-2** | **453** | **0** | **47** | **0** | **0** | **2** | **405** | **20.6** | **18** | **1** | **0** |
| Tomatoes and products | 199 | 7 | 26 | 1 | 179 | 0 | 20 | 0 | 0 | 2 | 157 | 8.0 | 4 | 0 | 0 |
| Onions, Dry | 47 | 1 | 0 | 0 | 48 | 0 | 5 | 0 | 0 | 0 | 43 | 2.2 | 2 | 0 | 0 |
| Vegetables, Other & Prod. | 225 | 6 | 6 | -3 | 227 | 0 | 22 | 0 | 0 | 0 | 205 | 10.5 | 12 | 1 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| **Fruits (Excluding Wine)** | **233** | **58** | **44** | **0** | **248** | **0** | **23** | **0** | **0** | **0** | **225** | **11.5** | **21** | **0** | **0** |
| Oranges, Tang-Mand & Prod. | 11 | 8 | 1 | 0 | 19 | 0 | 2 | 0 | 0 | 0 | 17 | 0.9 | 1 | 0 | 0 |
| Lemons, Limes and products | 3 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 0 | 0 | 0 |
| Grapefruit and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Citrus Fruit nes & prod | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 0 | 0 | 0 |
| Bananas | 16 | 10 | 0 | 0 | 26 | 0 | 3 | 0 | 0 | 0 | 23 | 1.2 | 4 | 0 | 0 |
| Plantains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Apples and products | 0 | 16 | 4 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 12 | 0.6 | 1 | 0 | 0 |
| Pineapples and products | 34 | 4 | 26 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 11 | 0.6 | 1 | 0 | 0 |
| Dates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Grapes and products (excl wine) | 0 | 3 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0.1 | 0 | 0 | 0 |
| Fruits, Other & Products | 168 | 12 | 13 | 0 | 167 | 0 | 17 | 0 | 0 | 0 | 150 | 7.7 | 14 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **5** | **3** | **6** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **0** | **0** | **0** |
| Coffee and products | 5 | 2 | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| Cocoa Beans and products | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Tea (including mate) | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **6** | **2** | **6** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **1** | **0** | **0** |
| Pepper | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pimento | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cloves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Spices, other | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **905** | **74** | **11** | **0** | **968** | **0** | **0** | **0** | **0** | **3** | **965** | **49.2** | **56** | **0** | **0** |
| Wine | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | 0.4 | 1 | 0 | 0 |
| Barley Beer | 261 | 57 | 8 | 0 | 310 | 0 | 0 | 0 | 0 | 0 | 310 | 15.8 | 19 | 0 | 0 |
| Beverages, fermented | 643 | 3 | 0 | 0 | 646 | 0 | 0 | 0 | 0 | 0 | 646 | 32.9 | 36 | 0 | 0 |
| Beverages, alcoholic | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Alcohol, non food | 0 | 5 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **143** | **52** | **8** | **0** | **187** | **0** | **0** | **0** | **0** | **1** | **186** | **9.5** | **52** | **4** | **4** |
| Meat & Products, Bovine | 61 | 2 | 1 | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 61 | 3.1 | 17 | 1 | 1 |
| Meat & Prod, Sheep & Goat | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 4 | 0 | 0 |
| Meat & Products, Pig | 38 | 1 | 1 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 38 | 1.9 | 16 | 1 | 2 |
| Meat & Products, Poultry | 27 | 49 | 6 | 0 | 71 | 0 | 0 | 0 | 0 | 1 | 70 | 3.6 | 15 | 2 | 1 |
| Meat & Products, Other Anim. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **15** | **0** | **0** | **0** | **15** | **0** | **0** | **0** | **0** | **0** | **15** | **0.8** | **2** | **0** | **0** |
| Offals, Edible | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.8 | 2 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **5** | **1** | **0** | **0** | **6** | **0** | **0** | **0** | **0** | **0** | **6** | **0.3** | **6** | **0** | **1** |
| Fats, Animals, Raw | 5 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 0.3 | 6 | 0 | 1 |
| Cream | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **104** | **51** | **59** | **-6** | **101** | **0** | **5** | **0** | **0** | **0** | **96** | **4.9** | **15** | **1** | **1** |
| Milk & Prod (Excluding Butter) | 104 | 51 | 59 | -6 | 101 | 0 | 5 | 0 | 0 | 0 | 96 | 4.9 | 15 | 1 | 1 |

| ZAMBIA FOOD BALANCE SHEETS 2022 | | | | | | | | | | | | Population ('000): 19 611 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Eggs** | **14** | **0** | **2** | **0** | **12** | **0** | **0** | **0** | **0** | **0** | **12** | **0.6** | **3** | **0** | **0** |
| Eggs and products | 14 | 0 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 12 | 0.6 | 3 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Fish & sea food** | **176** | **1** | **1** | **0** | **176** | **0** | **0** | **0** | **0** | **0** | **176** | **9** | **17** | **3** | **1** |
| Freshwater fish | 176 | 1 | 1 | 0 | 176 | 0 | 0 | 0 | 0 | 0 | 176 | 9.0 | 17 | 3 | 1 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0** | **31** | **3** | **0** | **28** | **0** | **0** | **0** | **0** | **0** | **28** | **1.4** | **3** | **0** | **0** |
| Infant food | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 1 | 0 | 0 |
| Miscellaneous | 0 | 29 | 3 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 27 | 1.4 | 2 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | 1000 Metric Tons | | | | | | | | | | | Kg. | Kcal | grams | grams |
| **Grand total** | | | | | | | | | | | | | **2 366** | **52** | **57** |
| **Vegetal prod.** | | | | | | | | | | | | | **2 258** | **44** | **50** |
| **Animal prod.** | | | | | | | | | | | | | **108** | **9** | **7** |
| **Cereals (excl. beer)** | **3 676** | **196** | **206** | **365** | **3 300** | **189** | **119** | **313** | **49** | **7** | **2 623** | **130** | **1 136** | **28** | **11** |
| Wheat and products | 277 | 85 | 72 | -24 | 314 | 0 | 14 | 0 | 3 | 2 | 295 | 14.7 | 110 | 3 | 0 |
| Barley and products | 20 | 10 | 7 | 0 | 23 | 22 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Maize and products | 3 262 | 21 | 105 | 395 | 2 783 | 140 | 98 | 313 | 43 | 5 | 2184 | 108.6 | 981 | 24 | 11 |
| Rye and products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oats and products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| Millet and products | 47 | 0 | 0 | 0 | 47 | 26 | 3 | 0 | 0 | 0 | 17 | 0.9 | 7 | 0 | 0 |
| Sorghum and products | 7 | 0 | 1 | 0 | 6 | 1 | 3 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| Rice & Prod (Milled Equivalent) | 63 | 78 | 21 | -5 | 126 | 0 | 2 | 0 | 2 | 0 | 121 | 6.0 | 37 | 1 | 0 |
| Cereals, Others & Products | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| **Starchy roots** | **4 750** | **34** | **5** | **624** | **4 155** | **0** | **467** | **0** | **7** | **0** | **3 681** | **182.9** | **473** | **4** | **1** |
| Potatoes and products | 65 | 6 | 2 | -11 | 81 | 0 | 7 | 0 | 7 | 0 | 67 | 3.3 | 6 | 0 | 0 |
| Cassava and products | 4 450 | 28 | 3 | 636 | 3 840 | 0 | 445 | 0 | 0 | 0 | 3 395 | 168.7 | 433 | 4 | 1 |
| Sweet potatoes | 235 | 0 | 0 | 0 | 235 | 0 | 15 | 0 | 0 | 0 | 220 | 10.9 | 34 | 0 | 0 |
| Yams | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Roots & Tubers, Other & Prod. | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **1 525** | **0** | **0** | **0** | **1 525** | **1 525** | **0** | **0** | **0** | **0** | **0** | **0.0** | **0** | **0** | **0** |
| Sugar cane | 1 525 | 0 | 0 | 0 | 1 525 | 1 525 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar Beets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **567** | **3** | **266** | **0** | **304** | **7** | **0** | **0** | **0** | **0** | **297** | **14.8** | **125** | **0** | **0** |
| Sugar non-centrifugal | 167 | 0 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sugar & Prod. (raw equivalent) | 398 | 3 | 97 | 0 | 304 | 7 | 0 | 0 | 0 | 0 | 297 | 14.8 | 125 | 0 | 0 |
| Sweeteners, other & prod. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Honey | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **103** | **0** | **13** | **-1** | **91** | **0** | **4** | **0** | **8** | **0** | **78** | **3.9** | **34** | **2** | **0** |
| Beans, Dry & Products | 88 | 0 | 10 | -1 | 80 | 0 | 4 | 0 | 8 | 0 | 67 | 3.3 | 29 | 2 | 0 |
| Peas, Dry & Products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pulses, Other and products | 14 | 0 | 3 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 11 | 0.6 | 5 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **4** | **0** | **1** | **0** | **4** | **0** | **0** | **0** | **0** | **0** | **3** | **0.2** | **1** | **0** | **0** |
| Nuts and products | 4 | 0 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 3 | 0.2 | 1 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **1 209** | **7** | **103** | **24** | **1 088** | **644** | **50** | **0** | **85** | **0** | **308** | **15.3** | **169** | **9** | **13** |
| Soyabeans & Products | 760 | 1 | 93 | 0 | 669 | 532 | 16 | 0 | 60 | 0 | 62 | 3.1 | 31 | 3 | 1 |
| Groundnuts (Shelled Eq) | 235 | 0 | 7 | 25 | 205 | 19 | 24 | 0 | 26 | 0 | 136 | 6.8 | 68 | 3 | 6 |
| Sunflower seed | 92 | 0 | 0 | 0 | 91 | 79 | 0 | 0 | 0 | 0 | 12 | 0.6 | 5 | 0 | 0 |
| Rape and Mustardseed | 108 | 0 | 0 | 0 | 108 | 0 | 11 | 0 | 0 | 0 | 97 | 4.8 | 65 | 3 | 6 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| Coconuts - Incl Copra | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| Sesame seed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palmkernels | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olives (including preserved) | 0 | 3 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops, Other | 14 | 1 | 2 | 0 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **129** | **98** | **19** | **0** | **208** | **0** | **0** | **0** | **0** | **27** | **181** | **9.0** | **217** | **0** | **25** |
| Soyabean Oil | 96 | 17 | 7 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 105 | 5.2 | 127 | 0 | 14 |
| Groundnut Oil | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.3 | 6 | 0 | 1 |
| Sunflowerseed Oil | 20 | 1 | 2 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 18 | 0.9 | 22 | 0 | 3 |
| Rape and Mustard Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cottonseed Oil | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 5 | 0 | 1 |
| Palmkernel Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Palm Oil | 0 | 69 | 6 | 0 | 63 | 0 | 0 | 0 | 0 | 25 | 38 | 1.9 | 47 | 0 | 5 |
| Coconut Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Sesameseed Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Olive & Residue Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Maize Germ Oil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Oilcrops Oil, Other | 5 | 11 | 4 | 0 | 12 | 0 | 0 | 0 | 0 | 2 | 10 | 0.5 | 10 | 0 | 1 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **486** | **12** | **43** | **-2** | **456** | **0** | **48** | **0** | **0** | **2** | **406** | **20.2** | **18** | **1** | **0** |
| Tomatoes and products | 204 | 7 | 37 | 1 | 173 | 0 | 20 | 0 | 0 | 2 | 151 | 7.5 | 4 | 0 | 0 |
| Onions, Dry | 49 | 0 | 0 | 0 | 49 | 0 | 5 | 0 | 0 | 0 | 44 | 2.2 | 2 | 0 | 0 |
| Vegetables, Other & Prod. | 233 | 5 | 6 | -3 | 234 | 0 | 22 | 0 | 0 | 0 | 212 | 10.5 | 12 | 1 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **218** | **67** | **13** | **0** | **272** | **0** | **23** | **0** | **0** | **0** | **249** | **12.4** | **23** | **0** | **0** |
| Oranges, Tang-Mand & Prod. | 13 | 12 | 1 | 0 | 23 | 0 | 1 | 0 | 0 | 0 | 22 | 1.1 | 2 | 0 | 0 |
| Lemons, Limes and products | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 0.2 | 0 | 0 | 0 |
| Grapefruit and products | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| Citrus Fruit nes & prod | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0.2 | 0 | 0 | 0 |
| Bananas | 18 | 8 | 0 | 0 | 26 | 0 | 3 | 0 | 0 | 0 | 24 | 1.2 | 4 | 0 | 0 |
| Plantains | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Apples and products | 0 | 18 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 1 | 0 | 0 |
| Pineapples and products | 11 | 5 | 4 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 12 | 0.6 | 1 | 0 | 0 |
| Dates | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Grapes and products (excl wine) | 0 | 8 | 2 | 0 | 6 | 0 | 1 | 0 | 0 | 0 | 5 | 0.2 | 0 | 0 | 0 |
| Fruits, Other & Products | 173 | 10 | 6 | 0 | 177 | 0 | 17 | 0 | 0 | 0 | 159 | 7.9 | 15 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **6** | **3** | **7** | **0** | **2** | **0** | **0** | **0** | **0** | **0** | **2** | **0.1** | **0** | **0** | **0** |
| Coffee and products | 6 | 1 | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 0 | 0 | 0 |
| Cocoa Beans and products | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Tea (including mate) | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **12** | **2** | **11** | **0** | **3** | **0** | **0** | **0** | **0** | **0** | **3** | **0.1** | **1** | **0** | **0** |
| Pepper | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Pimento | 9 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Cloves | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| Spices, other | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 1 | 0 | 0 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **993** | **87** | **3** | **0** | **1 077** | **0** | **0** | **0** | **0** | **3** | **1 074** | **53.4** | **59** | **0** | **0** |
| Wine | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 0.1 | 0 | 0 | 0 |
| Barley Beer | 267 | 75 | 0 | 0 | 342 | 0 | 0 | 0 | 0 | 0 | 342 | 17.0 | 20 | 0 | 0 |
| Beverages, fermented | 726 | 1 | 0 | 0 | 726 | 0 | 0 | 0 | 0 | 0 | 726 | 36.1 | 38 | 0 | 0 |
| Beverages, alcoholic | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0.1 | 1 | 0 | 0 |
| Alcohol, non food | 0 | 5 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 4 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **146** | **54** | **7** | **0** | **194** | **0** | **0** | **0** | **0** | **1** | **193** | **9.6** | **59** | **5** | **4** |
| Meat & Products, Bovine | 62 | 2 | 2 | 0 | 63 | 0 | 0 | 0 | 0 | 1 | 62 | 3.1 | 17 | 1 | 1 |
| Meat & Prod, Sheep & Goat | 17 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 | 0.9 | 4 | 0 | 0 |
| Meat & Products, Pig | 38 | 1 | 1 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 38 | 1.9 | 16 | 1 | 2 |
| Meat & Products, Poultry | 28 | 51 | 4 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 75 | 3.7 | 22 | 3 | 1 |
| Meat & Products, Other Anim. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **16** | **0** | **0** | **0** | **15** | **0** | **0** | **0** | **0** | **0** | **15** | **0.8** | **2** | **0** | **0** |
| Offals, Edible | 16 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 0.8 | 2 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **5** | **1** | **0** | **0** | **6** | **0** | **0** | **0** | **0** | **0** | **6** | **0.3** | **6** | **0** | **1** |
| Fats, Animals, Raw | 5 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 | 0.3 | 6 | 0 | 1 |
| Cream | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **164** | **28** | **65** | **-9** | **136** | **0** | **7** | **0** | **0** | **0** | **130** | **6.4** | **21** | **1** | **1** |
| Milk & Prod (Excluding Butter) | 164 | 28 | 65 | -9 | 136 | 0 | 7 | 0 | 0 | 0 | 130 | 6.4 | 21 | 1 | 1 |

| ZAMBIA FOOD BALANCE SHEETS 2023 | | | | | | | | | | | | Population ('000): 20 123 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | DOMESTIC SUPPLY (1000 MT) | | | | | DOMESTIC UTILIZATION (1000 MT) | | | | | | PER CAPITA SUPPLY | | | |
| | Prod. | Imports | Exports | Stock changes | Total D.S | Processed | Loss | Feed | Seed | Other Uses | Food | PER YEAR FOOD | PER DAY | | |
| | | | | | | | | | | | | | Calories | Proteins | Fats |
| | | | | | | | | | | | | | | | |
| **Eggs** | **14** | **0** | **2** | **0** | **12** | **0** | **0** | **0** | **0** | **0** | **12** | **0.6** | **3** | **0** | **0** |
| Eggs and products | 14 | 0 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 12 | 0.6 | 3 | 0 | 0 |
| | | | | | | | | | | | | | | | |
| **Fish & sea food** | **178** | **1** | **1** | **0** | **179** | **0** | **0** | **0** | **0** | **0** | **179** | **9** | **17** | **3** | **1** |
| Freshwater fish | 178 | 1 | 1 | 0 | 179 | 0 | 0 | 0 | 0 | 0 | 179 | 8.9 | 17 | 3 | 1 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0** | **20** | **3** | **0** | **18** | **0** | **0** | **0** | **0** | **0** | **18** | **0.9** | **2** | **0** | **0** |
| Infant food | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0.1 | 1 | 0 | 0 |
| Miscellaneous | 0 | 19 | 3 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 16 | 0.8 | 1 | 0 | 0 |

# Annex 10: Zambia FBS detailed results – Supply of minerals and vitamins (2019 – 2023)

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Grand total** | **341.2** | **422.5** | **33.8** | **12.9** | **359.7** | **839.2** | **1 977.7** | **0.6** | **1.2** | **1 985.3** | **127.3** | **110.7** | **6.3** | **8.9** | **8.2** |
| | | | | | | | | | | | | | | | |
| **Vegetal prod.** | **297.0** | **420.9** | **33.8** | **12.3** | **353.2** | **777.5** | **1 889.4** | **0.5** | **1.2** | **1 918.6** | **72.2** | **110.3** | **5.7** | **8.2** | **8.2** |
| **Animal prod.** | **44.2** | **1.5** | **0.0** | **0.5** | **6.5** | **61.8** | **88.3** | **0.1** | **0.1** | **66.7** | **55.1** | **0.4** | **0.6** | **0.7** | **0.0** |
| | | | | | | | | | | | | | | | |
| **Cereals (excl. beer)** | **39.9** | **197.6** | **15.8** | **5.3** | **190.9** | **460.9** | **581.4** | **0.2** | **0.7** | **27.0** | **14.7** | **0.0** | **3.6** | **0.0** | **0.0** |
| Wheat and products | 6.2 | 18.0 | 1.2 | 0.5 | 12.5 | 39.1 | 48.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Barley and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize and products | 29.4 | 174.7 | 14.2 | 4.7 | 174.0 | 409.2 | 519.4 | 0.2 | 0.6 | 27.0 | 14.7 | 0.0 | 3.1 | 0.0 | 0.0 |
| Rye and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oats and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Millet and products | 3.3 | 0.8 | 0.1 | 0.0 | 1.4 | 3.3 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sorghum and products | 0.4 | 1.4 | 0.1 | 0.1 | 1.9 | 4.7 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice & Prod (Milled Equivalent) | 0.5 | 2.7 | 0.1 | 0.0 | 1.1 | 4.3 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cereals, Others & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Starchy roots** | **197.4** | **163.6** | **14.2** | **5.0** | **100.2** | **181.1** | **837.1** | **0.1** | **0.2** | **8.2** | **29.0** | **16.3** | **1.3** | **0.1** | **0.0** |
| Potatoes and products | 0.7 | 1.4 | 0.1 | 0.1 | 1.8 | 4.3 | 37.7 | 0.0 | 0.0 | 0.1 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 |
| Cassava and products | 176.1 | 158.0 | 13.9 | 4.8 | 95.2 | 170.6 | 752.2 | 0.1 | 0.2 | 3.3 | 1.6 | 11.8 | 1.2 | 0.0 | 0.0 |
| Sweet potatoes | 20.5 | 4.2 | 0.1 | 0.1 | 3.1 | 6.1 | 47.2 | 0.0 | 0.0 | 4.9 | 27.3 | 3.0 | 0.0 | 0.1 | 0.0 |
| Yams | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Roots & Tubers, Other & Prod. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar cane | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar Beets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **0.9** | **44.7** | **0.0** | **0.0** | **0.5** | **0.1** | **1.3** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar non-centrifugal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Prod. (raw equivalent) | 0.9 | 43.3 | 0.0 | 0.0 | 0.4 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sweeteners, other & prod. | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Honey | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **0.5** | **3.9** | **1.6** | **0.0** | **14.3** | **32.2** | **122.9** | **0.0** | **0.0** | **0.2** | **0.1** | **8.8** | **0.0** | **0.0** | **0.0** |
| Beans, Dry & Products | 0.0 | 3.6 | 1.5 | 0.0 | 13.4 | 30.2 | 115.6 | 0.0 | 0.0 | 0.2 | 0.1 | 8.8 | 0.0 | 0.0 | 0.0 |
| Peas, Dry & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 0.5 | 0.3 | 0.1 | 0.0 | 0.9 | 1.9 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Nuts and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **22.8** | **2.8** | **1.2** | **0.8** | **37.1** | **82.3** | **206.3** | **0.0** | **0.2** | **0.3** | **0.1** | **0.1** | **0.6** | **0.2** | **0.0** |
| Soyabeans & Products | 16.8 | 1.7 | 0.4 | 0.6 | 19.1 | 43.8 | 145.8 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 |
| Groundnuts (Shelled Eq) | 5.4 | 1.1 | 0.7 | 0.2 | 16.0 | 34.4 | 57.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Sunflower seed | 0.6 | 0.1 | 0.1 | 0.0 | 2.0 | 4.1 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Rape and Mustardseed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconuts - Incl Copra | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesame seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olives (including preserved) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **2.2** | **2.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Soyabean Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Groundnut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sunflowerseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustard Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cottonseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernel Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palm Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesameseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olive & Residue Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize Germ Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops Oil, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.2 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **29.7** | **3.1** | **1.0** | **1.0** | **6.3** | **13.2** | **102.9** | **0.1** | **0.1** | **1 853.8** | **24.4** | **75.7** | **0.1** | **0.2** | **8.2** |
| Tomatoes and products | 1.3 | 0.8 | 0.3 | 0.1 | 2.8 | 6.0 | 56.1 | 0.0 | 0.0 | 21.9 | 9.5 | 4.8 | 0.0 | 0.2 | 3.8 |
| Onions, Dry | 1.3 | 0.4 | 0.2 | 0.0 | 0.7 | 1.9 | 9.7 | 0.0 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Vegetables, Other & Prod. | 27.1 | 1.9 | 0.5 | 0.8 | 2.8 | 5.3 | 37.1 | 0.0 | 0.0 | 1831.6 | 14.8 | 70.4 | 0.1 | 0.0 | 4.4 |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **3.6** | **4.4** | **0.2** | **0.1** | **1.9** | **2.4** | **26.9** | **0.0** | **0.0** | **26.4** | **1.4** | **9.3** | **0.0** | **7.7** | **0.0** |
| Oranges, Tang-Mand & Prod. | 1.0 | 0.3 | 0.0 | 0.0 | 0.2 | 0.4 | 3.4 | 0.0 | 0.0 | 0.2 | 0.1 | 1.6 | 0.0 | 0.8 | 0.0 |
| Lemons, Limes and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.2 | 0.0 |
| Grapefruit and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Citrus Fruit nes & prod | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bananas | 0.2 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 6.8 | 0.0 | 0.0 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| Plantains | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Apples and products | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 1.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Pineapples and products | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 1.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |
| Dates | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grapes and products (excl wine) | 0.2 | 0.2 | 0.0 | 0.0 | 0.1 | 0.2 | 2.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Fruits, Other & Products | 1.9 | 2.9 | 0.1 | 0.1 | 0.8 | 1.0 | 11.9 | 0.0 | 0.0 | 24.7 | 0.8 | 5.4 | 0.0 | 6.4 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **0.1** | **0.0** | **0.0** | **0.0** | **0.2** | **0.3** | **1.4** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Coffee and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cocoa Beans and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tea (including mate) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Pepper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pimento | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cloves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Spices, other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **1.0** | **0.7** | **0.0** | **0.0** | **1.7** | **4.5** | **8.2** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Wine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barley Beer | 1.0 | 0.6 | 0.0 | 0.0 | 1.6 | 4.4 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, fermented | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, alcoholic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcohol, non food | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **2.4** | **0.0** | **0.0** | **0.3** | **3.9** | **34.1** | **54.4** | **0.0** | **0.1** | **2.2** | **2.2** | **0.1** | **0.5** | **0.7** | **0.0** |
| Meat & Products, Bovine | 0.5 | 0.0 | 0.0 | 0.1 | 1.2 | 11.0 | 18.0 | 0.0 | 0.0 | 0.6 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 |
| Meat & Prod, Sheep & Goat | 0.3 | 0.0 | 0.0 | 0.1 | 0.5 | 4.3 | 6.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Meat & Products, Pig | 0.7 | 0.0 | 0.0 | 0.1 | 1.0 | 9.9 | 16.9 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 |
| Meat & Products, Poultry | 0.9 | 0.0 | 0.0 | 0.1 | 1.2 | 9.0 | 13.1 | 0.0 | 0.0 | 1.3 | 1.3 | 0.1 | 0.1 | 0.6 | 0.0 |
| Meat & Products, Other Anim. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **0.2** | **0.0** | **0.0** | **0.1** | **0.2** | **3.6** | **4.0** | **0.0** | **0.0** | **41.7** | **41.6** | **0.2** | **0.0** | **0.0** | **0.0** |
| Offals, Edible | 0.2 | 0.0 | 0.0 | 0.1 | 0.2 | 3.6 | 4.0 | 0.0 | 0.0 | 41.7 | 41.6 | 0.2 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.3** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Fats, Animals, Raw | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Butter, Ghee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cream | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, body oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Fish, liver oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **40.0** | **1.5** | **0.0** | **0.0** | **2.0** | **18.8** | **26.3** | **0.0** | **0.0** | **14.1** | **7.4** | **0.2** | **0.1** | **0.0** | **0.0** |
| Milk & Prod (Excluding Butter) | 40.0 | 1.5 | 0.0 | 0.0 | 2.0 | 18.8 | 26.3 | 0.0 | 0.0 | 14.1 | 7.4 | 0.2 | 0.1 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **1.5** | **0.0** | **0.0** | **0.1** | **0.3** | **5.0** | **3.3** | **0.0** | **0.0** | **8.4** | **3.7** | **0.0** | **0.0** | **0.0** | **0.0** |
| Eggs and products | 1.5 | 0.0 | 0.0 | 0.1 | 0.3 | 5.0 | 3.3 | 0.0 | 0.0 | 8.4 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0.9** | **0.1** | **0.0** | **0.0** | **0.1** | **0.5** | **0.8** | **0.0** | **0.0** | **0.4** | **0.4** | **0.1** | **0.0** | **0.0** | **0.0** |
| Infant food | 0.9 | 0.1 | 0.0 | 0.0 | 0.1 | 0.5 | 0.8 | 0.0 | 0.0 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| Miscellaneous | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Grand total** | **339** | **423** | **34** | **13** | **360** | **833** | **1974** | **0.59** | **1** | **1977** | **131** | **109** | **6** | **8** | **8** |
| | | | | | | | | | | | | | | | |
| **Vegetal prod.** | **306.0** | **422.1** | **33.7** | **12.4** | **354.4** | **780.4** | **1899.0** | **0.5** | **1.2** | **1914.8** | **79.0** | **109.0** | **5.7** | **7.6** | **7.6** |
| **Animal prod.** | **32.8** | **1.1** | **0.0** | **0.5** | **5.5** | **52.6** | **75.0** | **0.1** | **0.1** | **61.7** | **51.8** | **0.3** | **0.6** | **0.6** | **0.0** |
| | | | | | | | | | | | | | | | |
| **Cereals (excl. beer)** | **43.1** | **198.3** | **15.8** | **5.3** | **191.9** | **464.0** | **584.3** | **0.2** | **0.7** | **27.0** | **14.7** | **0.0** | **3.6** | **0.0** | **0.0** |
| Wheat and products | 6.4 | 18.0 | 1.2 | 0.5 | 12.5 | 39.9 | 48.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Barley and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize and products | 29.4 | 174.7 | 14.2 | 4.7 | 174.0 | 409.2 | 519.4 | 0.2 | 0.6 | 27.0 | 14.7 | 0.0 | 3.1 | 0.0 | 0.0 |
| Rye and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oats and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Millet and products | 6.2 | 1.5 | 0.2 | 0.1 | 2.6 | 6.2 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Sorghum and products | 0.3 | 1.1 | 0.1 | 0.1 | 1.5 | 3.9 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice & Prod (Milled Equivalent) | 0.6 | 2.9 | 0.1 | 0.0 | 1.1 | 4.6 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cereals, Others & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Starchy roots** | **202.3** | **164.3** | **14.1** | **5.0** | **101.2** | **183.3** | **861.0** | **0.1** | **0.2** | **9.7** | **36.9** | **17.7** | **1.3** | **0.1** | **0.0** |
| Potatoes and products | 1.0 | 1.9 | 0.2 | 0.1 | 2.6 | 6.0 | 53.4 | 0.0 | 0.0 | 0.1 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 |
| Cassava and products | 174.8 | 156.9 | 13.8 | 4.7 | 94.6 | 169.4 | 746.7 | 0.1 | 0.2 | 3.3 | 1.6 | 11.7 | 1.2 | 0.0 | 0.0 |
| Sweet potatoes | 26.5 | 5.5 | 0.1 | 0.2 | 4.0 | 7.9 | 60.9 | 0.0 | 0.0 | 6.3 | 35.3 | 3.8 | 0.1 | 0.1 | 0.0 |
| Yams | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Roots & Tubers, Other & Prod. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar cane | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar Beets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **0.9** | **45.1** | **0.0** | **0.0** | **0.5** | **0.1** | **1.3** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar non-centrifugal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Prod. (raw equivalent) | 0.9 | 43.5 | 0.0 | 0.0 | 0.4 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sweeteners, other & prod. | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Honey | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **1.5** | **3.7** | **1.4** | **0.1** | **13.3** | **29.9** | **113.3** | **0.0** | **0.0** | **0.2** | **0.1** | **6.9** | **0.1** | **0.0** | **0.0** |
| Beans, Dry & Products | 0.0 | 2.8 | 1.1 | 0.0 | 10.4 | 23.5 | 89.7 | 0.0 | 0.0 | 0.1 | 0.1 | 6.9 | 0.0 | 0.0 | 0.0 |
| Peas, Dry & Products | 0.1 | 0.2 | 0.1 | 0.0 | 0.3 | 1.1 | 3.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 1.4 | 0.7 | 0.2 | 0.1 | 2.6 | 5.3 | 20.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Nuts and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **22.7** | **2.8** | **1.2** | **0.8** | **37.6** | **83.0** | **204.4** | **0.0** | **0.2** | **0.3** | **0.1** | **0.1** | **0.6** | **0.2** | **0.0** |
| Soyabeans & Products | 16.5 | 1.6 | 0.4 | 0.6 | 18.8 | 42.9 | 143.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 |
| Groundnuts (Shelled Eq) | 5.4 | 1.0 | 0.7 | 0.2 | 15.7 | 33.9 | 56.2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Sunflower seed | 0.9 | 0.1 | 0.1 | 0.0 | 3.0 | 6.1 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustardseed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Coconuts - Incl Copra | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesame seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olives (including preserved) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **2.5** | **2.3** | **0.0** | **0.0** | **0.0** | **0.0** |
| Soyabean Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Groundnut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sunflowerseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustard Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cottonseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernel Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palm Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesameseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olive & Residue Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize Germ Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops Oil, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.5 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **29.5** | **3.0** | **1.0** | **0.9** | **5.9** | **12.3** | **94.8** | **0.1** | **0.0** | **1850.3** | **22.9** | **75.0** | **0.1** | **0.1** | **7.6** |
| Tomatoes and products | 1.1 | 0.7 | 0.3 | 0.1 | 2.4 | 5.2 | 48.1 | 0.0 | 0.0 | 18.8 | 8.2 | 4.1 | 0.0 | 0.1 | 3.2 |
| Onions, Dry | 1.3 | 0.4 | 0.2 | 0.0 | 0.7 | 1.9 | 9.7 | 0.0 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 |
| Vegetables, Other & Prod. | 27.1 | 1.9 | 0.5 | 0.8 | 2.8 | 5.3 | 37.0 | 0.0 | 0.0 | 1831.3 | 14.6 | 70.4 | 0.1 | 0.0 | 4.4 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **3.3** | **4.1** | **0.2** | **0.1** | **1.8** | **2.2** | **25.4** | **0.0** | **0.0** | **24.2** | **1.4** | **9.2** | **0.0** | **7.1** | **0.0** |
| Oranges, Tang-Mand & Prod. | 0.9 | 0.3 | 0.0 | 0.0 | 0.2 | 0.4 | 3.2 | 0.0 | 0.0 | 0.2 | 0.1 | 1.6 | 0.0 | 0.8 | 0.0 |
| Lemons, Limes and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.2 | 0.0 |
| Grapefruit and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Citrus Fruit nes & prod | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bananas | 0.2 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 6.8 | 0.0 | 0.0 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| Plantains | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Apples and products | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 1.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Pineapples and products | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |
| Dates | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grapes and products (excl wine) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fruits, Other & Products | 1.8 | 2.7 | 0.1 | 0.1 | 0.8 | 1.0 | 11.8 | 0.0 | 0.0 | 22.7 | 0.8 | 5.3 | 0.0 | 5.9 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **0.2** | **0.1** | **0.0** | **0.0** | **0.4** | **0.4** | **3.5** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Coffee and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cocoa Beans and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tea (including mate) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Pepper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pimento | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cloves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices, other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **1.3** | **0.6** | **0.0** | **0.0** | **1.8** | **4.5** | **9.8** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Wine | 0.4 | 0.1 | 0.0 | 0.0 | 0.5 | 0.9 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barley Beer | 0.8 | 0.5 | 0.0 | 0.0 | 1.3 | 3.6 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, fermented | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, alcoholic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcohol, non food | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **2.2** | **0.0** | **0.0** | **0.3** | **3.6** | **31.6** | **50.3** | **0.0** | **0.0** | **2.1** | **2.1** | **0.0** | **0.4** | **0.6** | **0.0** |
| Meat & Products, Bovine | 0.5 | 0.0 | 0.0 | 0.1 | 1.2 | 10.9 | 17.9 | 0.0 | 0.0 | 0.6 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 |
| Meat & Prod, Sheep & Goat | 0.2 | 0.0 | 0.0 | 0.1 | 0.5 | 4.2 | 6.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Meat & Products, Pig | 0.6 | 0.0 | 0.0 | 0.0 | 0.9 | 8.4 | 14.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| Meat & Products, Poultry | 0.8 | 0.0 | 0.0 | 0.1 | 1.1 | 8.1 | 11.7 | 0.0 | 0.0 | 1.2 | 1.2 | 0.0 | 0.1 | 0.5 | 0.0 |
| Meat & Products, Other Anim. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **0.2** | **0.0** | **0.0** | **0.1** | **0.2** | **3.6** | **3.9** | **0.0** | **0.0** | **41.6** | **41.2** | **0.2** | **0.0** | **0.0** | **0.0** |
| Offals, Edible | 0.2 | 0.0 | 0.0 | 0.1 | 0.2 | 3.6 | 3.9 | 0.0 | 0.0 | 41.6 | 41.2 | 0.2 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.3** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Fats, Animals, Raw | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Butter, Ghee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cream | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, body oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, liver oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **29.0** | **1.1** | **0.0** | **0.0** | **1.3** | **12.7** | **17.4** | **0.0** | **0.0** | **10.2** | **5.0** | **0.1** | **0.1** | **0.0** | **0.0** |
| Milk & Prod (Excluding Butter) | 29.0 | 1.1 | 0.0 | 0.0 | 1.3 | 12.7 | 17.4 | 0.0 | 0.0 | 10.2 | 5.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **1.4** | **0.0** | **0.0** | **0.1** | **0.3** | **4.6** | **3.0** | **0.0** | **0.0** | **7.7** | **3.4** | **0.0** | **0.0** | **0.0** | **0.0** |
| Eggs and products | 1.4 | 0.0 | 0.0 | 0.1 | 0.3 | 4.6 | 3.0 | 0.0 | 0.0 | 7.7 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | 0.009 | 0.000 | 0.000 |
| **Miscellaneous** | **1.1** | **0.1** | **0.0** | **0.0** | **0.1** | **0.6** | **1.0** | **0.0** | **0.0** | **0.5** | **0.5** | **0.1** | **0.0** | **0.0** | **0.0** |
| Infant food | 1.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.6 | 1.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 |
| Miscellaneous | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Grand total** | **318** | **424** | **33** | **13** | **363** | **847** | **1923** | **1** | **1** | **1981** | **144** | **102** | **6** | **11** | **7** |
| | | | | | | | | | | | | | | | |
| **Vegetal prod.** | **297.3** | **423.5** | **33.3** | **12.4** | **357.7** | **797.8** | **1853.1** | **0.5** | **1.2** | **1921.3** | **91.5** | **101.5** | **5.9** | **10.1** | **6.8** |
| **Animal prod.** | **20.8** | **0.6** | **0.0** | **0.5** | **5.1** | **49.1** | **69.7** | **0.1** | **0.1** | **59.8** | **52.8** | **0.3** | **0.6** | **0.6** | **0.0** |
| | | | | | | | | | | | | | | | |
| **Cereals (excl. beer)** | **43.1** | **216.4** | **17.1** | **5.8** | **207.5** | **504.2** | **632.5** | **0.2** | **0.7** | **29.4** | **16.0** | **0.0** | **3.9** | **0.0** | **0.0** |
| Wheat and products | 7.1 | 19.5 | 1.3 | 0.6 | 13.4 | 43.7 | 52.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Barley and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize and products | 32.0 | 190.1 | 15.5 | 5.1 | 189.3 | 445.3 | 565.3 | 0.2 | 0.6 | 29.3 | 16.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Rye and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oats and products | 0.1 | 0.1 | 0.0 | 0.0 | 0.3 | 1.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Millet and products | 2.6 | 0.7 | 0.1 | 0.0 | 1.1 | 2.6 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sorghum and products | 0.3 | 1.0 | 0.1 | 0.0 | 1.3 | 3.3 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice & Prod (Milled Equivalent) | 0.9 | 5.0 | 0.1 | 0.1 | 2.0 | 8.1 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cereals, Others & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Starchy roots** | **194.4** | **149.6** | **12.7** | **4.6** | **92.7** | **168.3** | **805.8** | **0.1** | **0.2** | **11.9** | **51.2** | **18.0** | **1.2** | **0.2** | **0.0** |
| Potatoes and products | 1.0 | 1.9 | 0.2 | 0.1 | 2.6 | 6.0 | 53.5 | 0.0 | 0.0 | 0.1 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 |
| Cassava and products | 156.0 | 140.0 | 12.3 | 4.2 | 84.4 | 151.1 | 666.3 | 0.1 | 0.2 | 2.9 | 1.5 | 10.5 | 1.1 | 0.0 | 0.0 |
| Sweet potatoes | 37.4 | 7.7 | 0.1 | 0.2 | 5.7 | 11.1 | 86.0 | 0.0 | 0.0 | 8.9 | 49.8 | 5.4 | 0.1 | 0.2 | 0.0 |
| Yams | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Roots & Tubers, Other & Prod. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar cane | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar Beets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **0.9** | **43.7** | **0.0** | **0.0** | **0.4** | **0.1** | **1.3** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar non-centrifugal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Prod. (raw equivalent) | 0.8 | 41.3 | 0.0 | 0.0 | 0.4 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sweeteners, other & prod. | 0.1 | 2.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Honey | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **1.6** | **3.1** | **1.2** | **0.1** | **11.1** | **24.6** | **93.9** | **0.0** | **0.0** | **0.2** | **0.1** | **5.4** | **0.1** | **0.0** | **0.0** |
| Beans, Dry & Products | 0.0 | 2.2 | 0.9 | 0.0 | 8.1 | 18.4 | 70.3 | 0.0 | 0.0 | 0.1 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 |
| Peas, Dry & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 1.6 | 0.9 | 0.3 | 0.1 | 3.0 | 6.2 | 23.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Nuts and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **22.9** | **2.9** | **1.2** | **0.8** | **37.6** | **83.6** | **209.9** | **0.0** | **0.2** | **0.3** | **0.1** | **0.1** | **0.6** | **0.2** | **0.0** |
| Soyabeans & Products | 16.5 | 1.6 | 0.4 | 0.6 | 18.8 | 43.0 | 143.2 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 |
| Groundnuts (Shelled Eq) | 6.3 | 1.2 | 0.9 | 0.3 | 18.5 | 39.8 | 66.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| Sunflower seed | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.8 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustardseed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Coconuts - Incl Copra | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesame seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olives (including preserved) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **2.5** | **2.3** | **0.0** | **0.0** | **0.0** | **0.0** |
| Soyabean Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Groundnut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sunflowerseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustard Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cottonseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernel Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palm Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesameseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olive & Residue Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize Germ Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops Oil, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.5 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **29.2** | **2.8** | **0.9** | **0.9** | **5.2** | **10.9** | **81.7** | **0.1** | **0.0** | **1844.9** | **20.7** | **73.9** | **0.1** | **0.1** | **6.8** |
| Tomatoes and products | 0.8 | 0.5 | 0.2 | 0.1 | 1.7 | 3.8 | 35.1 | 0.0 | 0.0 | 13.7 | 6.0 | 3.0 | 0.0 | 0.1 | 2.3 |
| Onions, Dry | 1.3 | 0.4 | 0.2 | 0.0 | 0.7 | 1.9 | 9.7 | 0.0 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 |
| Vegetables, Other & Prod. | 27.1 | 1.9 | 0.5 | 0.8 | 2.8 | 5.2 | 36.9 | 0.0 | 0.0 | 1831.0 | 14.6 | 70.4 | 0.1 | 0.0 | 4.4 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **3.3** | **4.4** | **0.2** | **0.1** | **1.3** | **1.6** | **17.2** | **0.0** | **0.0** | **31.7** | **0.6** | **4.1** | **0.0** | **9.6** | **0.0** |
| Oranges, Tang-Mand & Prod. | 0.9 | 0.3 | 0.0 | 0.0 | 0.2 | 0.4 | 3.3 | 0.0 | 0.0 | 0.2 | 0.1 | 1.6 | 0.0 | 0.8 | 0.0 |
| Lemons, Limes and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.2 | 0.0 |
| Grapefruit and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Citrus Fruit nes & prod | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bananas | 0.2 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 6.8 | 0.0 | 0.0 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| Plantains | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Apples and products | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 1.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Pineapples and products | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |
| Dates | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grapes and products (excl wine) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fruits, Other & Products | 1.8 | 3.0 | 0.2 | 0.1 | 0.2 | 0.4 | 3.5 | 0.0 | 0.0 | 30.2 | 0.1 | 0.2 | 0.0 | 8.3 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **0.1** | **0.0** | **0.0** | **0.0** | **0.3** | **0.3** | **2.9** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Coffee and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cocoa Beans and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tea (including mate) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Pepper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pimento | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cloves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices, other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **0.9** | **0.6** | **0.0** | **0.0** | **1.4** | **3.8** | **6.9** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Wine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barley Beer | 0.8 | 0.5 | 0.0 | 0.0 | 1.4 | 3.7 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, fermented | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, alcoholic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcohol, non food | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **2.2** | **0.0** | **0.0** | **0.3** | **3.6** | **32.1** | **51.0** | **0.0** | **0.0** | **2.1** | **2.1** | **0.0** | **0.5** | **0.6** | **0.0** |
| Meat & Products, Bovine | 0.6 | 0.0 | 0.0 | 0.1 | 1.3 | 11.9 | 19.5 | 0.0 | 0.0 | 0.7 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 |
| Meat & Prod, Sheep & Goat | 0.3 | 0.0 | 0.0 | 0.1 | 0.5 | 4.3 | 6.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Meat & Products, Pig | 0.6 | 0.0 | 0.0 | 0.0 | 0.8 | 8.1 | 13.8 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| Meat & Products, Poultry | 0.8 | 0.0 | 0.0 | 0.1 | 1.0 | 7.8 | 11.4 | 0.0 | 0.0 | 1.1 | 1.1 | 0.0 | 0.1 | 0.5 | 0.0 |
| Meat & Products, Other Anim. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **0.2** | **0.0** | **0.0** | **0.1** | **0.3** | **3.8** | **4.2** | **0.0** | **0.0** | **44.2** | **44.0** | **0.2** | **0.0** | **0.0** | **0.0** |
| Offals, Edible | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 3.8 | 4.2 | 0.0 | 0.0 | 44.2 | 44.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.4** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** |
| Fats, Animals, Raw | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Butter, Ghee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cream | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, body oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, liver oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **17.0** | **0.6** | **0.0** | **0.0** | **0.9** | **8.5** | **11.2** | **0.0** | **0.0** | **5.7** | **3.2** | **0.1** | **0.0** | **0.0** | **0.0** |
| Milk & Prod (Excluding Butter) | 17.0 | 0.6 | 0.0 | 0.0 | 0.9 | 8.5 | 11.2 | 0.0 | 0.0 | 5.7 | 3.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **1.4** | **0.0** | **0.0** | **0.1** | **0.3** | **4.5** | **3.0** | **0.0** | **0.0** | **7.6** | **3.4** | **0.0** | **0.0** | **0.0** | **0.0** |
| Eggs and products | 1.4 | 0.0 | 0.0 | 0.1 | 0.3 | 4.5 | 3.0 | 0.0 | 0.0 | 7.6 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0.8** | **0.1** | **0.0** | **0.0** | **0.1** | **0.4** | **0.7** | **0.0** | **0.0** | **0.4** | **0.4** | **0.1** | **0.0** | **0.0** | **0.0** |
| Infant food | 0.8 | 0.1 | 0.0 | 0.0 | 0.1 | 0.4 | 0.7 | 0.0 | 0.0 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| Miscellaneous | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Grand total** | **295** | **404** | **32** | **12** | **359** | **849** | **1811** | **1** | **1** | **1982** | **124** | **97** | **6** | **12** | **6** |
| | | | | | | | | | | | | | | | |
| **Vegetal prod.** | **262.3** | **403.2** | **31.9** | **11.8** | **352.2** | **790.4** | **1727.0** | **0.5** | **1.2** | **1918.5** | **68.6** | **97.1** | **5.9** | **11.3** | **6.2** |
| **Animal prod.** | **33.2** | **1.1** | **0.0** | **0.6** | **6.3** | **58.6** | **84.4** | **0.1** | **0.1** | **63.2** | **55.2** | **0.4** | **0.6** | **1.0** | **0.0** |
| | | | | | | | | | | | | | | | |
| **Cereals (excl. beer)** | **43.4** | **218.1** | **17.2** | **5.8** | **208.4** | **505.9** | **635.7** | **0.2** | **0.7** | **29.4** | **16.0** | **0.0** | **3.9** | **0.0** | **0.0** |
| Wheat and products | 7.4 | 20.9 | 1.4 | 0.6 | 14.5 | 45.9 | 56.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Barley and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize and products | 32.0 | 190.1 | 15.5 | 5.1 | 189.3 | 445.4 | 565.4 | 0.2 | 0.6 | 29.3 | 16.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Rye and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oats and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Millet and products | 2.9 | 0.7 | 0.1 | 0.0 | 1.2 | 2.9 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sorghum and products | 0.2 | 0.7 | 0.1 | 0.0 | 1.0 | 2.4 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice & Prod (Milled Equivalent) | 0.9 | 5.6 | 0.1 | 0.1 | 2.2 | 8.9 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cereals, Others & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Starchy roots** | **156.3** | **126.0** | **10.8** | **3.8** | **77.4** | **140.0** | **653.6** | **0.1** | **0.2** | **7.7** | **29.8** | **13.3** | **1.0** | **0.1** | **0.0** |
| Potatoes and products | 0.6 | 1.1 | 0.1 | 0.1 | 1.5 | 3.6 | 31.1 | 0.0 | 0.0 | 0.1 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 |
| Cassava and products | 134.2 | 120.5 | 10.6 | 3.6 | 72.6 | 130.0 | 573.1 | 0.1 | 0.2 | 2.5 | 1.2 | 9.0 | 0.9 | 0.0 | 0.0 |
| Sweet potatoes | 21.5 | 4.4 | 0.1 | 0.1 | 3.3 | 6.4 | 49.4 | 0.0 | 0.0 | 5.1 | 28.6 | 3.1 | 0.0 | 0.1 | 0.0 |
| Yams | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Roots & Tubers, Other & Prod. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Sugar crops** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar cane | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar Beets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **0.9** | **44.0** | **0.0** | **0.0** | **0.4** | **0.1** | **1.3** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar non-centrifugal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Prod. (raw equivalent) | 0.8 | 41.8 | 0.0 | 0.0 | 0.4 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sweeteners, other & prod. | 0.1 | 2.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Honey | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **1.3** | **3.3** | **1.3** | **0.1** | **12.0** | **26.6** | **101.8** | **0.0** | **0.0** | **0.2** | **0.1** | **6.4** | **0.1** | **0.0** | **0.0** |
| Beans, Dry & Products | 0.0 | 2.6 | 1.1 | 0.0 | 9.6 | 21.8 | 83.2 | 0.0 | 0.0 | 0.1 | 0.1 | 6.4 | 0.0 | 0.0 | 0.0 |
| Peas, Dry & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 1.3 | 0.7 | 0.2 | 0.1 | 2.3 | 4.8 | 18.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.1** | **0.2** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Nuts and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **25.3** | **3.3** | **1.5** | **0.9** | **45.4** | **99.6** | **229.8** | **0.0** | **0.2** | **0.3** | **0.1** | **0.1** | **0.8** | **0.2** | **0.0** |
| Soyabeans & Products | 16.5 | 1.6 | 0.4 | 0.6 | 18.8 | 42.9 | 143.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 |
| Groundnuts (Shelled Eq) | 7.6 | 1.5 | 1.0 | 0.3 | 22.2 | 48.0 | 79.5 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Sunflower seed | 1.3 | 0.1 | 0.1 | 0.1 | 4.3 | 8.7 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Rape and Mustardseed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Coconuts - Incl Copra | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesame seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olives (including preserved) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **2.4** | **2.2** | **0.0** | **0.0** | **0.0** | **0.0** |
| Soyabean Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Groundnut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sunflowerseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustard Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cottonseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernel Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palm Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesameseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olive & Residue Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize Germ Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops Oil, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **29.0** | **2.7** | **0.8** | **0.9** | **4.8** | **10.0** | **73.1** | **0.1** | **0.0** | **1841.6** | **19.2** | **73.1** | **0.1** | **0.1** | **6.2** |
| Tomatoes and products | 0.6 | 0.4 | 0.2 | 0.1 | 1.3 | 2.9 | 26.5 | 0.0 | 0.0 | 10.3 | 4.5 | 2.2 | 0.0 | 0.1 | 1.8 |
| Onions, Dry | 1.3 | 0.4 | 0.2 | 0.0 | 0.7 | 1.9 | 9.7 | 0.0 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 |
| Vegetables, Other & Prod. | 27.1 | 1.9 | 0.5 | 0.8 | 2.8 | 5.3 | 36.9 | 0.0 | 0.0 | 1831.1 | 14.6 | 70.4 | 0.1 | 0.0 | 4.4 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **3.7** | **4.9** | **0.2** | **0.2** | **1.3** | **1.7** | **17.5** | **0.0** | **0.0** | **36.5** | **0.7** | **4.1** | **0.0** | **10.9** | **0.0** |
| Oranges, Tang-Mand & Prod. | 1.0 | 0.4 | 0.0 | 0.0 | 0.2 | 0.5 | 3.4 | 0.0 | 0.0 | 0.2 | 0.1 | 1.6 | 0.0 | 0.8 | 0.0 |
| Lemons, Limes and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.2 | 0.0 |
| Grapefruit and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Citrus Fruit nes & prod | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bananas | 0.2 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 6.8 | 0.0 | 0.0 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| Plantains | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Apples and products | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 1.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Pineapples and products | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 1.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |
| Dates | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grapes and products (excl wine) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fruits, Other & Products | 2.1 | 3.5 | 0.2 | 0.1 | 0.3 | 0.4 | 3.7 | 0.0 | 0.0 | 34.9 | 0.1 | 0.2 | 0.0 | 9.6 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **0.1** | **0.0** | **0.0** | **0.0** | **0.3** | **0.3** | **2.8** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Coffee and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cocoa Beans and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tea (including mate) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Pepper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pimento | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cloves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices, other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **1.3** | **0.8** | **0.0** | **0.0** | **2.0** | **5.5** | **10.2** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Wine | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barley Beer | 1.2 | 0.8 | 0.0 | 0.0 | 1.9 | 5.3 | 9.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, fermented | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, alcoholic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcohol, non food | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **2.8** | **0.0** | **0.0** | **0.4** | **4.4** | **38.2** | **59.8** | **0.0** | **0.0** | **3.0** | **3.0** | **0.1** | **0.5** | **1.0** | **0.0** |
| Meat & Products, Bovine | 0.6 | 0.0 | 0.0 | 0.1 | 1.3 | 11.9 | 19.6 | 0.0 | 0.0 | 0.7 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 |
| Meat & Prod, Sheep & Goat | 0.3 | 0.0 | 0.0 | 0.1 | 0.5 | 4.4 | 6.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Meat & Products, Pig | 0.5 | 0.0 | 0.0 | 0.0 | 0.8 | 7.6 | 13.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| Meat & Products, Poultry | 1.5 | 0.0 | 0.0 | 0.1 | 1.9 | 14.3 | 20.7 | 0.0 | 0.0 | 2.0 | 2.0 | 0.1 | 0.1 | 0.9 | 0.0 |
| Meat & Products, Other Anim. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **0.2** | **0.0** | **0.0** | **0.1** | **0.3** | **3.9** | **4.3** | **0.0** | **0.0** | **44.9** | **44.7** | **0.2** | **0.0** | **0.0** | **0.0** |
| Offals, Edible | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 3.9 | 4.3 | 0.0 | 0.0 | 44.9 | 44.7 | 0.2 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.4** | **0.0** | **0.0** | **0.2** | **0.2** | **0.0** | **0.0** | **0.0** | **0.0** |
| Fats, Animals, Raw | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Butter, Ghee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cream | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, body oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, liver oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **29.2** | **1.1** | **0.0** | **0.0** | **1.4** | **13.3** | **17.9** | **0.0** | **0.0** | **10.0** | **5.0** | **0.1** | **0.1** | **0.0** | **0.0** |
| Milk & Prod (Excluding Butter) | 29.2 | 1.1 | 0.0 | 0.0 | 1.4 | 13.3 | 17.9 | 0.0 | 0.0 | 10.0 | 5.0 | 0.1 | 0.1 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **0.9** | **0.0** | **0.0** | **0.0** | **0.2** | **3.0** | **2.0** | **0.0** | **0.0** | **5.1** | **2.3** | **0.0** | **0.0** | **0.0** | **0.0** |
| Eggs and products | 0.9 | 0.0 | 0.0 | 0.0 | 0.2 | 3.0 | 2.0 | 0.0 | 0.0 | 5.1 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0.8** | **0.1** | **0.0** | **0.0** | **0.1** | **0.5** | **0.7** | **0.0** | **0.0** | **0.4** | **0.4** | **0.1** | **0.0** | **0.0** | **0.0** |
| Infant food | 0.8 | 0.1 | 0.0 | 0.0 | 0.1 | 0.5 | 0.7 | 0.0 | 0.0 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| Miscellaneous | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Grand total** | **328** | **410** | **33** | **13** | **370** | **875** | **1912** | **1** | **1** | **1989** | **146** | **103** | **7** | **13** | **6** |
| | | | | | | | | | | | | | | | |
| **Vegetal prod.** | **284.7** | **408.4** | **32.8** | **12.0** | **362.9** | **811.6** | **1820.6** | **0.5** | **1.2** | **1922.8** | **89.8** | **102.9** | **5.9** | **11.8** | **5.9** |
| **Animal prod.** | **43.8** | **1.5** | **0.0** | **0.6** | **6.9** | **63.3** | **91.4** | **0.1** | **0.1** | **66.6** | **56.6** | **0.4** | **0.6** | **1.1** | **0.0** |
| | | | | | | | | | | | | | | | |
| **Cereals (excl. beer)** | **45.9** | **218.9** | **17.2** | **5.8** | **209.2** | **506.8** | **637.7** | **0.2** | **0.7** | **29.4** | **16.0** | **0.0** | **4.0** | **0.0** | **0.0** |
| Wheat and products | 7.0 | 20.7 | 1.4 | 0.6 | 14.6 | 44.7 | 55.9 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Barley and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize and products | 32.0 | 190.1 | 15.5 | 5.1 | 189.3 | 445.4 | 565.4 | 0.2 | 0.6 | 29.3 | 16.0 | 0.0 | 3.4 | 0.0 | 0.0 |
| Rye and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oats and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Millet and products | 5.7 | 1.4 | 0.2 | 0.1 | 2.4 | 5.7 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Sorghum and products | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.6 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rice & Prod (Milled Equivalent) | 1.0 | 6.3 | 0.1 | 0.1 | 2.5 | 10.1 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Cereals, Others & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Starchy roots** | **176.7** | **134.7** | **11.2** | **4.0** | **82.7** | **149.7** | **710.1** | **0.1** | **0.2** | **11.5** | **51.4** | **15.8** | **1.0** | **0.2** | **0.0** |
| Potatoes and products | 0.6 | 1.2 | 0.1 | 0.1 | 1.6 | 3.8 | 32.6 | 0.0 | 0.0 | 0.1 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| Cassava and products | 138.4 | 125.7 | 11.0 | 3.7 | 75.4 | 134.8 | 590.9 | 0.1 | 0.2 | 2.5 | 1.2 | 9.1 | 0.9 | 0.0 | 0.0 |
| Sweet potatoes | 37.7 | 7.8 | 0.1 | 0.2 | 5.7 | 11.2 | 86.6 | 0.0 | 0.0 | 9.0 | 50.1 | 5.5 | 0.1 | 0.2 | 0.0 |
| Yams | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Roots & Tubers, Other & Prod. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | 2023 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| **Sugar crops** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar cane | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar Beets | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Sugar & Sweeteners** | **0.8** | **38.3** | **0.0** | **0.0** | **0.4** | **0.1** | **1.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Sugar non-centrifugal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sugar & Prod. (raw equivalent) | 0.7 | 36.7 | 0.0 | 0.0 | 0.4 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sweeteners, other & prod. | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Honey | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Pulses** | **0.7** | **4.4** | **1.8** | **0.0** | **16.3** | **36.6** | **140.0** | **0.0** | **0.0** | **0.2** | **0.1** | **10.0** | **0.0** | **0.0** | **0.0** |
| Beans, Dry & Products | 0.0 | 4.1 | 1.7 | 0.0 | 15.1 | 34.1 | 130.4 | 0.0 | 0.0 | 0.2 | 0.1 | 10.0 | 0.0 | 0.0 | 0.0 |
| Peas, Dry & Products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pulses, Other and products | 0.7 | 0.4 | 0.1 | 0.0 | 1.2 | 2.5 | 9.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Treenuts** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Nuts and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Oilcrops** | **25.5** | **3.3** | **1.5** | **1.0** | **45.8** | **100.5** | **230.6** | **0.0** | **0.2** | **0.3** | **0.1** | **0.1** | **0.8** | **0.2** | **0.0** |
| Soyabeans & Products | 16.5 | 1.6 | 0.4 | 0.6 | 18.8 | 42.9 | 143.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 |
| Groundnuts (Shelled Eq) | 7.6 | 1.5 | 1.0 | 0.3 | 22.2 | 47.9 | 79.4 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Sunflower seed | 1.4 | 0.2 | 0.1 | 0.1 | 4.7 | 9.5 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Rape and Mustardseed | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconuts - Incl Copra | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| Sesame seed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernels | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olives (including preserved) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetable oils** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **2.8** | **2.6** | **0.0** | **0.0** | **0.0** | **0.0** |
| Soyabean Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Groundnut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sunflowerseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Rape and Mustard Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cottonseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palmkernel Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Palm Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coconut Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Sesameseed Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Olive & Residue Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Maize Germ Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Oilcrops Oil, Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.8 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Vegetables** | **28.9** | **2.6** | **0.8** | **0.9** | **4.6** | **9.5** | **68.9** | **0.1** | **0.0** | **1839.9** | **18.5** | **72.7** | **0.1** | **0.1** | **5.9** |
| Tomatoes and products | 0.5 | 0.3 | 0.1 | 0.1 | 1.1 | 2.4 | 22.2 | 0.0 | 0.0 | 8.6 | 3.7 | 1.9 | 0.0 | 0.1 | 1.5 |
| Onions, Dry | 1.3 | 0.4 | 0.2 | 0.0 | 0.7 | 1.9 | 9.7 | 0.0 | 0.0 | 0.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 |
| Vegetables, Other & Prod. | 27.1 | 1.9 | 0.5 | 0.8 | 2.8 | 5.3 | 36.9 | 0.0 | 0.0 | 1831.1 | 14.6 | 70.4 | 0.1 | 0.0 | 4.4 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Fruits (Excluding Wine)** | **3.8** | **5.2** | **0.2** | **0.2** | **1.4** | **1.7** | **18.2** | **0.0** | **0.0** | **38.1** | **0.7** | **4.2** | **0.0** | **11.4** | **0.0** |
| Oranges, Tang-Mand & Prod. | 1.0 | 0.4 | 0.0 | 0.0 | 0.2 | 0.5 | 3.5 | 0.0 | 0.0 | 0.2 | 0.1 | 1.7 | 0.0 | 0.8 | 0.0 |
| Lemons, Limes and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.2 | 0.0 |
| Grapefruit and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Citrus Fruit nes & prod | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bananas | 0.2 | 0.7 | 0.0 | 0.0 | 0.6 | 0.5 | 6.8 | 0.0 | 0.0 | 1.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 |
| Plantains | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Apples and products | 0.1 | 0.3 | 0.0 | 0.0 | 0.1 | 0.2 | 1.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 |
| Pineapples and products | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 1.2 | 0.0 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 | 0.2 | 0.0 |
| Dates | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Grapes and products (excl wine) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fruits, Other & Products | 2.2 | 3.7 | 0.2 | 0.1 | 0.3 | 0.4 | 3.8 | 0.0 | 0.0 | 36.6 | 0.1 | 0.2 | 0.0 | 10.1 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Stimulants** | **0.1** | **0.0** | **0.0** | **0.0** | **0.3** | **0.3** | **2.6** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Coffee and products | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cocoa Beans and products | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tea (including mate) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Spices** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Pepper | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Pimento | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cloves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Spices, other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Products | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Alcoholic beverages** | **1.3** | **0.8** | **0.0** | **0.0** | **2.1** | **5.6** | **10.1** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** |
| Wine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Barley Beer | 1.3 | 0.8 | 0.0 | 0.0 | 2.0 | 5.5 | 9.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, fermented | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Beverages, alcoholic | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Alcohol, non food | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Meat** | **2.9** | **0.0** | **0.0** | **0.4** | **4.5** | **38.6** | **60.5** | **0.0** | **0.0** | **3.1** | **3.1** | **0.1** | **0.5** | **1.0** | **0.0** |
| Meat & Products, Bovine | 0.6 | 0.0 | 0.0 | 0.1 | 1.3 | 11.8 | 19.4 | 0.0 | 0.0 | 0.7 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 |
| Meat & Prod, Sheep & Goat | 0.3 | 0.0 | 0.0 | 0.1 | 0.5 | 4.4 | 6.5 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 |
| Meat & Products, Pig | 0.5 | 0.0 | 0.0 | 0.0 | 0.8 | 7.4 | 12.8 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| Meat & Products, Poultry | 1.5 | 0.0 | 0.0 | 0.2 | 2.0 | 15.0 | 21.8 | 0.0 | 0.0 | 2.2 | 2.2 | 0.1 | 0.1 | 0.9 | 0.0 |
| Meat & Products, Other Anim. | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Offals** | **0.2** | **0.0** | **0.0** | **0.1** | **0.3** | **3.9** | **4.3** | **0.0** | **0.0** | **44.8** | **44.7** | **0.2** | **0.0** | **0.0** | **0.0** |
| Offals, Edible | 0.2 | 0.0 | 0.0 | 0.1 | 0.3 | 3.9 | 4.3 | 0.0 | 0.0 | 44.8 | 44.7 | 0.2 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Animal fats** | **0.0** | **0.0** | **0.0** | **0.0** | **0.0** | **0.2** | **0.4** | **0.0** | **0.0** | **0.2** | **0.2** | **0.0** | **0.0** | **0.0** | **0.0** |
| Fats, Animals, Raw | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Butter, Ghee | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cream | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, body oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fish, liver oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| ZAMBIA- Sypply of Vitamins and minerals | | | | | | | | | | | | | | | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Products** | Calcium | Carbohy-drate | Dietary fibre | Iron | Magnesium | Phosphorus | Potassium | Riboflavin | Thiamin | Vitamin A RE | Vitamin A RAE | Vitamin C | Zinc | Vitamin PP | Folate (Vit B-9) |
| | milligrams | grams | grams | milligrams | milligrams | milligrams | milligrams | milligrams | milligrams | mcg | mcg | milligrams | milligrams | milligrams | milligrams |
| | | | | | | | | | | | | | | | |
| **Milk - Excluding Butter** | **39.7** | **1.5** | **0.0** | **0.0** | **1.9** | **17.7** | **24.3** | **0.0** | **0.0** | **13.6** | **6.5** | **0.2** | **0.1** | **0.0** | **0.0** |
| Milk & Prod (Excluding Butter) | 39.7 | 1.5 | 0.0 | 0.0 | 1.9 | 17.7 | 24.3 | 0.0 | 0.0 | 13.6 | 6.5 | 0.2 | 0.1 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Eggs** | **0.9** | **0.0** | **0.0** | **0.0** | **0.2** | **2.9** | **1.9** | **0.0** | **0.0** | **4.9** | **2.2** | **0.0** | **0.0** | **0.0** | **0.0** |
| Eggs and products | 0.9 | 0.0 | 0.0 | 0.0 | 0.2 | 2.9 | 1.9 | 0.0 | 0.0 | 4.9 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | | | | | | | | | | | | | | |
| **Miscellaneous** | **0.9** | **0.1** | **0.0** | **0.0** | **0.1** | **0.5** | **0.8** | **0.0** | **0.0** | **0.4** | **0.4** | **0.1** | **0.0** | **0.0** | **0.0** |
| Infant food | 0.9 | 0.1 | 0.0 | 0.0 | 0.1 | 0.5 | 0.8 | 0.0 | 0.0 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| Miscellaneous | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


COMESA


BANQUE AFRICAINE DE DEVELOPPEMENT
AFRICAN DEVELOPMENT BANK
AFRICAN DEVELOPMENT FUND
FONDS AFRICAIN DE DEVELOPPEMENT