



STATE OF FOOD SECURITY IN BURUNDI

Comprehensive Food Security



and Vulnerability Analysis
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Preface

The Comprehensive Food Security and Vulnerability Assessment (CFSVA 2023) conducted in Burundi encompassing all provinces, distinguishing between urban and rural areas, represents a significant endeavour following a nine-year hiatus. During this period, numerous social and economic changes, including conflict and disasters, have profoundly affected the lives many Burundians. The assessment serves as a valuable complement and update to data previously collected by the Ministry of Health through Smart surveys.

The study adopts World Food Programme's (WFP) new consolidated food security indicator approach (CARI) to comprehensively grasp food security in all its dimensions. It incorporates a thorough nutrition component for all provinces, employing the Standardized Monitoring Assessment of Relief and Transition (SMART) methodology.

The outcomes of this study will furnish stakeholders in the food security and nutrition sector with an updated database to fulfil their mission of addressing food insecurity and malnutrition in specific areas of Burundi. The report is poised to become a foundational tool for monitoring and evaluating various ongoing and future interventions in the country.

This report materialized through a collaborative process that commenced in May 2023, involving the invaluable contributions of numerous individuals and organizations. The National Institute of Statistics of Burundi (INSBU) played a pivotal role in securing funds and providing technical support. The Ministry of Agriculture took a leading role in facilitating the process and, the National Institute of Statistics of Burundi (INSBU) executed the entire process, overseeing the critical aspects of the study. Gratitude is extended to the technical services of the Directorate of Statistics and Health Information (DSNIS), the National Nutrition Programme (PRONIANUT), PMSAN, the FEWSNET network, and colleagues from the United Nations system in Burundi.

Appreciation is expressed to Mr. Housainou TAAL, former Director of WFP Burundi, and Mr. Michael Dunford, WFP Regional Director for East Africa, for initiating and endorsing the project at the highest level. Special acknowledgement is given to the WFP Burundi, particularly Programme Unit, and regional office in Nairobi for their technical support. A special mention goes to Mr. Sahib Haq, Food Security Analyst, and consultant at WFP for his leadership, analysis and completion of report.

Our gratitude extends to all the field teams who worked under challenging conditions due to the isolation of some of the villages and neighbourhoods selected for the survey. The dedication of INSBU technical team is also appreciated. We express our thanks to the hill and municipal authorities for their collaboration, which significantly contributed to the success of the investigation. Furthermore, we are thankful to the interviewees across the country for their time and patience in participating in this exercise.

In conclusion, heartfelt thanks to WFP and FAO for their financial contributions to this study, and to PRONIANUT for providing the necessary equipment for anthropometric measurements, along with a consultant to support the nutritional analysis.

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ACRONYM

BIF	Burundian Franc
BSF	Blanket Supplementary Feeding
CARI	Consolidated Approach for Reporting Indicators
CFSVA	Comprehensive Food Security and Vulnerability Assessment
INSBU	Institut National de la Statistique du Burundi
MINEAGRIE	Ministry of the Environment, Agriculture and Livestock (Ministère de l'Environnement, de l'Agriculture)
CS	Coping Strategy
CSI	Coping Strategy Index
DDS	Dietary Diversity Score
EAs	Enumeration Areas
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
DG	Directeur Général
GDP	Gross Domestic Product
FSMS	Food security Monitoring survey
HH	Household
IOM	International Organization for Migration
IYCF	infant and young child feeding
IFPRI	International Food Policy Research Institute
LCSI	Livelihood Coping Strategy Index
MICS	Multiple Indicators Cluster Survey
SMART	Standardized Monitoring and Assessment of Relief and Transitions
MAD	Minimum Acceptable Diet
MDD	Minimum Dietary Diversity
MEB	Minimum Expenditure Basket
MFI	Market Functionality Index
MICS	Multiple Indicator Cluster Survey
MT	Metric Ton
ODK	Open data kit
PCC	International Panel on Climate Change
PRRO	Protracted Relief and Recovery Operation
rCSI	Reduced Coping Strategy Index
TSF	Targeted Supplementary Feeding
UNICEF	United Nations Children Fund
UNHCR	United Nations High Commissioner for Refugees
VISACA	Village Savings and Credit Association
SPSS	Statistical Package for Social Sciences
WFP	World Food Programme
WHO	World Health Organization

ADI	Acceptable Dietary Intake
IYCF	Infant and young child feeding
MDD	Minimum dietary diversity
ENA for SMART	Emergency Nutrition Assessment for Standardized Monitoring
ART	Assessment of Relief and Transitions
SD	Standard Deviation
MAM	Moderate acute malnutrition
SAM	Severe acute malnutrition
WHO	World Health Organization
WFA	Weight-for-Age
MUAC	Middle Upper Arm Circumference
WFH	Weight-for-Height

Executive summary

The Food Security and Vulnerability Analysis (CFSVA 2023) in Burundi provides insights into food security trends for the last nine years since the last assessment in 2014. Conducted at critical juncture, the CFSVA 2023 coincided with multiple disasters, including the conflict of 2015, the impact of COVID-19, the Ukraine crisis impacting Burundi's markets, price hikes, as well as climatic disasters such as floods and droughts across the nation. The study revealed a notable increase in prices of essential commodities since 2014, a decline in crop production since 2019, particularly in rainfed farming and small farmers, agriculture labourers and petty traders, predominantly women, who struggled to meet their basic food needs. The flooding of Lake Tanganyika from April to July 2021 displaced more than 40,000 people, leading to the destruction of crops and homes.

Burundi's GDP Annual Growth Rate, averaging 2.75% from 1961 until 2022, faced a significant setback during the 2015 conflict when it dropped to -3.9 percent. Although there was a gradual recovery, reaching 3.1 percent in 2021, it subsequently dropped to 1.8 in 2022. Consequently, the food security situation mirrored this decline. CFSVA 2023 found that 41.2 percent of the households, equivalent to 5,398,685 people (based on 2023 population) are food insecure. This includes 32.3 percent moderately and 8.9 percent severely food insecure, constituting a population of 4,229,604 and 1,169,081 respectively. Rural areas experienced higher food insecurity at 44 percent compared to urban at 17.8 percent in urban areas. Similarly, female-headed households faced more significant food insecurity at 50 percent compared 39.1 percent for male headed households.

Comparatively, in 2008, the food insecurity was 27.8 percent, which increased to 32 percent in 2014 and further rose to 41.2 percent in 2023 at the national level. Meanwhile, the percentage of the food-secure population decreased from 68 percent in 2014 to 58.8 percent in 2023, resulting in a nearly doubled food-insecure population from almost 3,000,000 in 2014 to 5,396,556 in 2023.

Examining provinces, Kirundo had the highest food insecurity at 74.1 percent, followed by Muramvya at 65.2 percent, Ruyigi at 54.3 percent and Bururi at 51.1 percent. Conversely, Bujumbura Mairie exhibited the lowest food insecurity at 13.1 percent, followed by Makamba at 17 percent, Rutana at 21.8 percent, Cankuzo at 27 percent and Bujumbura Rural at 27.2 percent.

In terms of livelihood zones, CFSVA 2023 identified Buragane as the least food insecure zone at 9 percent, followed by Bujumbura Mairie at 13.3 percent. Depression du Nord had the highest percentage of food insecure households at 66.2 percent, followed by Haute altitude at 52.1 percent.

Beyond gender, CFSVA 2023, highlighted several groups at high risk of food insecurity in the country. Households with illiterate heads of households experienced a higher percentage of food insecurity at 43.2 percent compared to those led by individuals with master's and PhD degrees, where the percentages were 30.1 percent and 25.3 percent respectively. Households affected by shocks were more food insecure at 42.1 percent compared to others at 39.3 percent. Family size also played a role, with larger family size (11-15 persons) experiencing lower food insecurity at 17.9 percent compared to smaller families (1-2 persons) at 50.2 percent.

Disability of the household head emerged as an obstacle to achieving better food security. The percentage of food insecurity was higher at 48.8 percent among the households whose head had any kind of disability compared to 40.2 percent among those with no disability. The availability of rooms for household members also impacted food security, with households where more than five people shared a room being more food insecure at 58.7 percent compared to those with one-two persons per room at 38.5 percent.

According to CFSVA 2023 in Burundi, the percentage of food insecure households is higher among those not producing food (47.4 percent) compared to those engaged in food (38.2 percent). Households with no land exhibit a higher level of food insecurity at 42.8 percent compared to those keeping land for

cultivation at 40.1 percent. However, a noteworthy finding is that the percentage of food insecure households is substantially higher at 46.8 percent among the farmers with land size below 0.25 hectare. In contrast, farmers with 0.25 to 0.5 hectares experience 24.1 percent food insecurity, 0.5 to 1 hectare at 17 percent, 1-2 hectares at 10.8 percent, and above 5 hectares land size at 2.5 percent. On the other hand, households involved in livestock rearing are found to be less food insecure than those without livestock.

The source of income or the type of livelihood is a crucial determinant of food insecurity in Burundi. According to CFSVA 2023, households engaged in trade/business demonstrate the least food insecurity, nearly at almost zero percent, followed by salaried individuals (employment/wage) at 6.1 percent and pensioners at 6.4 percent. The highest percentage of food insecure households is found in the agriculture labour group at 68.4 percent, followed by aid/donation recipients at 57.5 percent, and those involved in sale of handicrafts at 47.9 percent.

CFSVA 2023 also examined the nutritional status of children (6-59 months of age) in Burundi. The prevalence of chronic malnutrition remains alarmingly high, with over half of the children stunted, 55.9 percent. This prevalence is consistent with the 2022 SMART survey (55.8 percent) indicating a persistent issue and well above the WHO's alert threshold of 30percent. Boys are more affected than girls, with 59.4 percent experiencing chronic malnutrition compared to 52.2 percent. The prevalence of acute malnutrition among children aged 6 to 59 months is 6.0 percent, significantly higher than the 2022 SMART survey (4.8 percent). Moderate acute malnutrition (MAM) was 4.2 percent and severe acute malnutrition (SAM) at 1.8%. The prevalence of acute malnutrition according to MUAC and the presence of oedema is 5.5%. Underweight prevalence is 29.5 percent, higher than SMART 2022 survey (27.6 percent).

CFSVA 2023 establishes a clear correlation between food insecurity and malnutrition. Under Middle Upper Arm Circumference (MUAC) the severely food insecure group exhibits a higher percentage of both SAM 1.8 percent and MAM 6 percent compared to the food secure group at 0.6 percent and 4.1 percent respectively. Similarly, in chronic malnutrition, the severely food insecure group has a higher percentage of children with severe chronic malnutrition children at 35.6 percent compared to food secure group at 18.2 percent.

Market surveys reveal that national level markets, both rural and urban, were generally functional across the provinces, scoring above six points in the six dimensions measured. However, most markets faced challenges related to price fluctuations, services and product quality. Some markets may not be suitable for cash modalities in humanitarian interventions.

Burundi's economy is predominately characterized by subsistence agriculture (90 percent of the total population), with the majority farmers cultivating less than half a hectare of land. The concentration of people in farming for survival, coupled with weak linkages between markets and producers, contributes to high transportation costs due to poor communication networks. Such concentration also feels threatened by modern agriculture such as smart agriculture, mechanization and diversification. Only 3 percent of food-producing farmers are able to sell surplus produce in the market, with an average 21 percent and even more than 50 percent in certain areas selling their produce. As a consequence, they end up buying again from the market at higher prices a few months after harvest.

The utilization of improved seed is reported by only 14.3 percent of farmers, while fertilizer is used by 62.3 percent. A mere 10.8 percent of cultivated land in the country is under irrigation, with remaining dependent on rainfall. Among the irrigated land farmers, only 28.3 percent have proper irrigation system. The most significant challenge reported by farmers included the non-availability of agriculture inputs (54.9 percent), high prices of agriculture inputs, small land size, crop diseases and insect attack, and the low soil fertility.

CHAPTER 1: Introduction

1. Background

1.1. Context

The Comprehensive Food Security and Vulnerability Assessment 2023 (CFSVA 2023) in Burundi is a study report with a global standard at par with other countries and with similar reports like DHS and MICS etc. CFSVA 2023 is therefore a comprehensive analytical study to deepen the understanding of key issues related to food security and nutrition, both for the Government, WFP and other stakeholders working in the food security sector. The CFSVA 2023 is not only covering the food security but also encompass key sectors including agriculture, livelihoods, disasters, health, education, assets and many more. This is the fourth CFSVA analysis carried out in Burundi with a gap of 9 years, the first in 2004, the second in 2008 and the 3rd in 2014.

Since the last CFSVA, many changes have taken place in the food security and nutrition sectors as a result of both internal and external factors. The need to update the food security and vulnerability analysis is therefore the fundamental reason to conduct the CFSVA 2023 in Burundi in order to better inform and contribute to the efforts of the Government and its partners to develop sustainable programs in the food security and nutrition sectors.

Indeed, this CFSVA, integrating nutrition, has made it possible to make the most recent nutritional data available. In addition, the results of this CFSVA provided baseline data on which the achievement of the objectives and goals of the interventions will be measured. CFSVA 2023 also provided an opportunity to assess the progress of some ongoing programmes that are supported in particular by partners of the Government of Burundi such as WFP (including WFP's Interim Country Strategic Plan – Burundi (2022–2024)).

1.2. Geographical and climatic context

Burundi is a country straddling East and Central Africa. It borders Rwanda to the north, the United Republic of Tanzania to the south and east and the Democratic Republic of Congo (DRC) to the west. It is part of the Great Lakes region. Its surface area is 27,834 km² including 2,700 km² of lakes and 23,500 km² of potentially agricultural land.

Burundi's terrain is generally rugged, characterized by hills whose slopes weaken the soil with the risk of erosion. There are 5 fairly diverse areas including the Imbo plain (between 774 m and 1,000 m above sea level), the foothills of Mimirwa (between 1,000 m and 1,500 m), the highlands of the Congo-Nile ridge (between 1,500 m and 2,600 m), the central plateaus (between 1,400 m and 2,000 m), the Moso depressions (between 1,200 m and 1,400 m) and the Bugesera depressions (1,200 m and 1,500 m). The climate is moderate tropical with abundant rainfall, but the country does not take full advantage of it.

Burundi has two distinct seasons: the dry season (June to August and December-January) and the rainy season (February-May and September-November). In recent years, the long dry season has tended to lengthen abnormally, especially in the low-lying areas (Bugesera, Moso and Imbo) with the early start of the rains in May and the return of the rains at the end of October. Torrential rains interspersed with periods of erratic rainfall lead to the weakening of the environment and reduce the potential for food production and land protection. The country faces not only floods and droughts, but also poor land management leading to land degradation.

Administratively, Burundi is subdivided into 17 provinces and the Bujumbura City Hall and 119 communes. This administrative division will remain in effect until the 2025 elections. After this period, Burundi will now be subdivided into 5 provinces, 42 communes, 447 zones and 3036 hills or neighbourhoods.

1.3. Demographic context

According to INSBU projections, Burundi's population is estimated at 13,097,397 inhabitants at the end of 2023 with an average annual growth rate of 2% per year. Burundi is ranked among the most densely populated African countries with an estimated density of 471 inhabitants/Km² in 2023. This population lives mainly in rural areas, with 86 out of every 100 inhabitants.

According to the results of the EDSB III 2016-2017, the population of Burundi is very young with 58.5% of people under 20 years old, 48.7% of whom are under 15 years old and 17.2% under 5 years old. The total fertility rate is 5.5 children per woman on average.

In recent years, population displacement has been observed both within the country and between Burundi and neighbouring countries and beyond. The causes are linked to armed conflicts in the Great Lakes sub-region for refugees or to climatic hazards, particularly drought and floods for internally displaced persons. Until the end of May 2023, UNHCR and WFP are assisting, through their operations, nearly 210,173 Burundians repatriated since 2017 as well as 87,656 refugees and asylum seekers (including 2,861 asylum seekers). These refugees and asylum-seekers are accommodated in 5 camps (Kavumu (17,921), Nyankanda (10,976), Bwagiriza (10,017), Musasa (9,029) and Kinama (7,487)) and the rest are settled in urban areas (32,226). At the end of May 2023, there were approximately 7,600 internally displaced persons (IDPs) assisted.

1.4. Socio-economic situation

Burundi is a landlocked country and also among Africa's smallest countries. It occupies an area of 10,747 square miles. Burundi is mainly comprised of vast plateaus with an average altitude of 5,600 feet above sea level. Due to its proximity to the equator, Burundi experiences an equatorial climate. Most of the natural resources in Burundi have not been fully explored due to the lack of technology and infrastructure. Some of Burundi's natural resources include arable land, natural forests, wildlife, water resources, peat, gold, nickel, and other mineral deposits¹.

Burundi is a low-income economy, with 80% of the population employed in the agricultural sector. Located in the Great Lakes region, Burundi is surrounded by Rwanda to the north, Tanzania to the east, the Democratic Republic of the Congo to the west, and bordered by Lake Tanganyika to the southwest. With a population of 12.5 million people (2021), 50.6% of whom are women and 41.5% young people under 15, Burundi is one of the most densely populated countries in the world, with a density ratio of 449 people per square kilometre (2021 population projection).

Burundi since its independence in 1962, passed through a number of crises. The political turmoil of 2015 collapsed the economic growth in Burundi. Donors withdrew development aid forcing the government to cut public investments and raise domestic public debt to finance the social spending. Another economic downturn hit the country in 2020, sparked by the global Covid-19 pandemic.

Burundi has suffered from an unusually high number of natural disasters. Droughts, torrential rain, floods and hailstorms have been particularly destructive in recent years. Disasters have contributed to the displacement of communities; the destruction of homes; the disruption of livelihoods and the further decline in food and nutrition security. Other effects of the disasters include decreases in land productivity and an increase in crop pests. Regions affected by recent natural disasters are also at risk for permanent food insecurity and weak nutritional conditions. Overcrowded areas (about 270 inhabitants per km², and up to nearly 500 per km² in the most densely populated areas) have also contributed to greater food and resource scarcity in affected areas².

The political turmoil in 2015 escalated Burundian refugees, reaching 2.5% of its population in 2020. Neighbouring countries implemented refugee repatriation programmes that further strained

¹ <https://www.worldatlas.com/articles/>

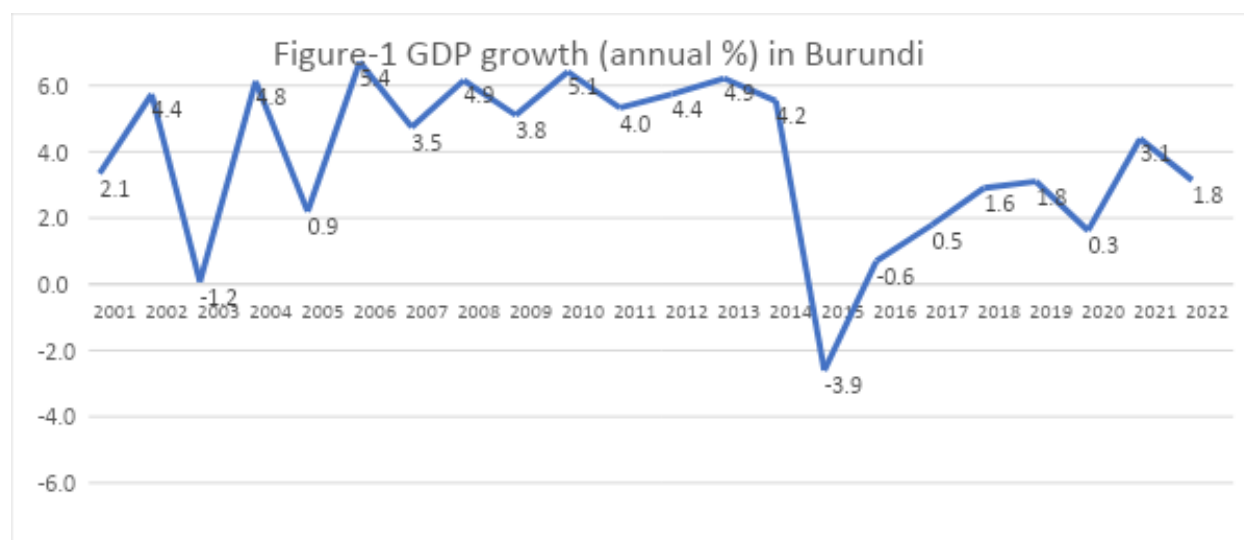
² IFAD: Enabling poor rural people to overcome poverty in Burundi.

Burundi's public finances and forced for additional jobs creation. Although personal remittances have played a positive role, a slowdown pace coupled with the global economic crisis could not make a major breakthrough³.

1.5. Economic Situation

Burundi has experienced a difficult economic situation in recent years, which has been marked by macroeconomic imbalances. To compensate for the loss of external resources, there has been an increase in domestic resource mobilization, but this has not been sufficient to meet a continuously rising social demand, driven by sustained population growth. Recent shocks (COVID-19 and the war in Ukraine) have interrupted a still fragile economic recovery and intensified macroeconomic imbalances. In 2022, economic growth slowed to 1.8% from 3.1% in 2021, caused by a modest performance of the industry and service sectors. However, ⁴agricultural production contracted slightly due to delayed rainfall and fertilizer distribution. The headline inflation rate reached 18.8% in 2022 and may remain high in 2023 due to the effects of higher food and oil prices on the global economy caused by the war in Ukraine.

According to the World Bank, the GDP growth rate of Burundi declined from 3.1% in 2021 to 1.8% in 2022¹. The International Monetary Fund (IMF) attributes the decline in GDP growth to the COVID-19 pandemic and Russia's war in Ukraine. The Trading Economics website reports that the GDP Annual Growth Rate in Burundi has averaged 2.75% from 1961 until 2022. During the 2015 conflict, the GDP growth rate dropped to -3.9 percent and since then never bounced back to the 2014 level of 4.2 percent. Although, it gradually gained momentum and reached 3.1 percent in 2021 but dropped to 1.8 in 2022.



The fiscal deficit increased from 4.6% of GDP in 2021 to 11.5% in 2022, driven by higher spending for grants, transfers, and investment while revenues declined slightly⁵.

The higher cost for imports of oil products, fertilizer, and food products, exacerbated by Russia's invasion of Ukraine, worsened both inflation and the trade deficit. Inflation more than doubled from 8.4% in 2021 to 18.7% in 2022. The trade deficit rose from 28.0% of GDP in 2021 to 28.7% in 2022, and the current account deficit rose from 11.0% of GDP in 2021 to 13.4% in 2022. The widening foreign deficit exacerbated the currency shortage, leading to a 2.9% depreciation of the Burundi

³ Burundi Labour Market Profile 2021/2022, Danish Trade Union Development Agency.

⁴ World Bank, March 2023

⁵ World Bank Report 2023

franc against the US dollar between late August 2021 and August 2022. Reserves were estimated at 1.7 months of import cover in late August 2022, down from 3.1 months a year earlier⁶.

1.6. Agriculture

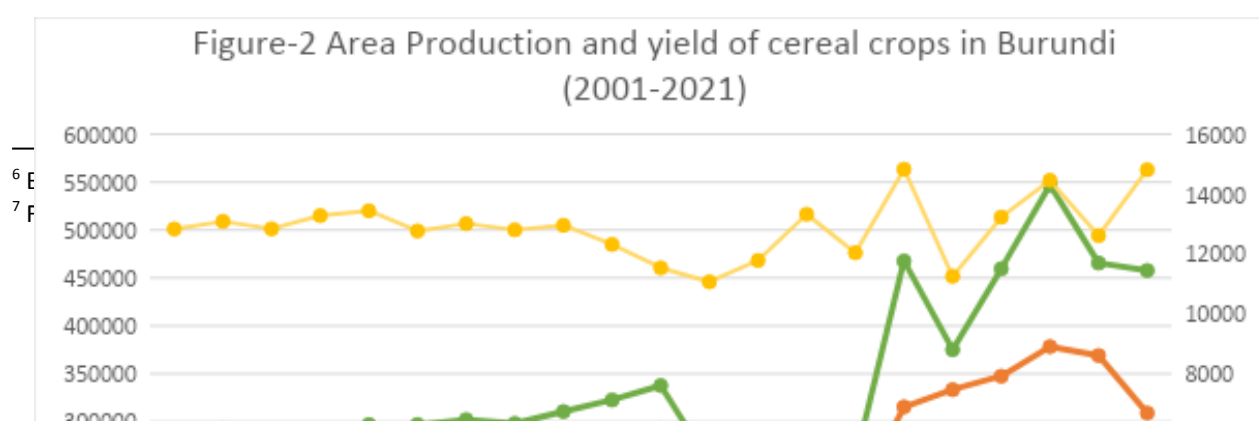
Burundi's economy is dominated by subsistence agriculture (90 percent of the total population). The main staple crops grown are banana, cassava, sweet potato and beans. Tea and coffee are the main export, accounting for more than 60 percent of export revenues, but national production is in decline since ageing coffee orchards produce only every two years. Other cash crops include tea, cotton, and sugar⁷. However, farmers in Burundi produce a number of food and cash crops including vegetables, sugarcane, rice, sorghum, peas, millet and maize.

The highest production is of cassava, followed by Bananas, sweet potatoes, beans and vegetables.

Table 1: Crop production in Burundi, 2021 in Tonnes

Item	Quantity
Cassava, fresh	2,528,076
Bananas	1,278,300
Sweet potatoes	718,351
Beans, dry	491,968
Other vegetables, fresh n.e.c.	484,696
Potatoes	339,573
Maize (corn)	280,000
Plantains and cooking bananas	234,575
Sugar cane	200,746
Other fruits, n.e.c.	130,633
Rice	120,000
Taro	117,935
Oil palm fruit	89,091
Tea leaves	50,357
Sorghum	25,000
Coffee, green	17,100
Cereals n.e.c.	12,984
Peas, dry	12,537
Millet	11,000
Source: FAO Statistics 2023	

The area and production of cereal crops remained stagnant from 2001 to 2009, while production started increasing during 2010 to 2011. However, both area and production of cereal crops declined in 2012. Although, since 2016 both the area and production started increasing but remained instable with fluctuation till 2020. In 2021, the area under cereals increased but production declined due to drought in the country. It should be noted that the yield of cereal crops steadily increased form 2014 2019 due to improved seed, use of fertilizer and improvement in the knowledge base. See the graph below for further details.



Rice has emerged as an important food staple in Burundi. The estimated land area currently being used for rice production in Burundi is about 50,000 hectares. This includes 5,000 hectares in the irrigated Imbo plain, 15,000 hectares in the non-irrigated Imbo plain, and 30,000 hectares in the Moso lowland and in high-elevation marshlands. The rice production increased from 18,000 MT in 1984 to 120,000 MT in 2019.

Production of sugarcane is widespread in the country, especially in areas with adequate water. There is only one sugar mill in Burundi producing raw sugar. In 2020, the Sugar mill produced 20436 MT of sugar, while 22785 MT of sugar was imported during the same year⁸.

In 2021, Burundi imported \$18.5M of Raw Sugar, becoming the 124th largest importer of Raw Sugar in the world. In the same year, Raw Sugar was the 8th most imported product in Burundi. Burundi imports Raw sugar primarily from: Zambia (\$8.19M), Malawi (\$3.22M), United Arab Emirates (\$2.41M), Uganda (\$2.41M), and India (\$1.41M)⁹.

1.7. Climate Change

Like other countries in the region, Burundi is also impacted by climate change. Lake Tanganyika's flooding from April to July 2021 displaced more than 40,000 people and destroyed crops and homes. The country loses about 4% of GDP every year due to land degradation. It ratified the UNFCCC in 1997 and endorsed the Paris Agreement in 2017. The implementation of its NDC of 2015 allowed for afforesting 20,000 hectares in five years and fostered the start of the construction of four hydropower plants. The NDC, revised in 2020, helps Burundi strengthen its commitments to mitigation and adaptation with actions focusing on conserving carbon sinks, adopting climate-resilient seeds and crops, and developing non-motorized transport infrastructure. Estimated at \$3.2 billion, implementing the NDC will be financed by domestic (\$430 million) and foreign resources (\$2.77 billion, split into \$1.32 billion for mitigation and \$1.45 billion for adaptation), moving toward reaching SDG 13 on climate action¹⁰.

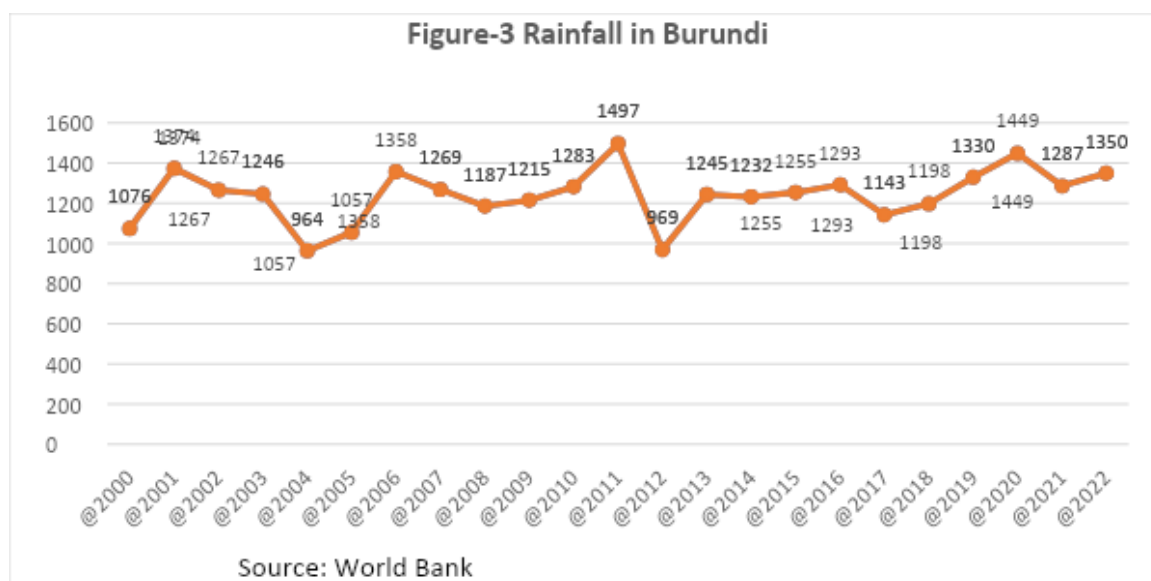
Rainfall

There are 2 rainy seasons in Burundi, one between February and May, and 2nd September to November. Annual precipitation stands at between 1500mm and 1800mm in high-elevation areas, though it drops to 1000mm on the shores of Lake Tanganyika and various depressions.

⁸ [Production and Import of sugar in Burundi – Iwacu Open Data \(iwacu-burundi.org\)](https://iwacu-burundi.org/)

⁹ [Raw Sugar in Burundi | OEC - The Observatory of Economic Complexity](https://oec.world/en/profile/country/bu)

¹⁰ African Economic Outlook 2022, African Development Bank Group



The average annual rainfall has fluctuated in Burundi since 2000. Since 2012, the average rainfall has declined and fluctuated till 2022 but never reached to the 2011 level. However, the rainfall was reported higher in 2020 at 1449mm but declined to 1287mm in 2021. The reduction in rainfall and change in the pattern has affected crop production in the country.

2. Objective of the CFSVA 2023

2.1. Objectives

Overall, CFSVA 2023 has updated information on the food security situation and made available nutrition data in Burundi for 2023 by covering issues on food availability, access and utilization as well as markets, livelihoods, nutrition, adaptation strategies and health. It aims to determine the level of food insecurity and malnutrition in the population, their causes and the most appropriate types of food, nutrition and health programmes.

The results of this analysis will also provide the Government of Burundi and its development partners with up-to-date information to refine policies and programmes in the food security and rural development sector, as well as a baseline analysis for monitoring food insecurity in the coming years.

More specifically, this analysis aims to:

- 1) Determine the level of food insecurity or risk of food insecurity (vulnerability) in Burundi;
- 2) Identify areas where households live in food insecure or vulnerable situations and to which future food and/or non-food assistance could be prioritized;
- 3) Identify the direct and underlying causes of food insecurity and risk factors for food insecurity so that they can be considered in response plans;
- 4) Analyse food security risks and constraints as well as the coping strategies adopted by households in the face of shocks and their consequences on resilience capacities;
- 5) Analyse the functioning of markets and its impact on household food security;
- 6) To determine the prevalence of chronic malnutrition, acute malnutrition and underweight among children under 5 years of age;
- 7) To determine the prevalence of chronic energy deficit in pregnant and lactating women;
- 8) Analyse breastfeeding practices, infant and young child feeding practices (6 to 23 months);
- 9) To determine the frequency of diseases in pregnant and lactating women;

- 10) To determine the rate of use of vitamin A supplementation coverage of postpartum children and women, and deworming coverage of children 1-5 years of age and pregnant women;
- 11) Determine the link between nutrition data and data on food security and household living conditions;
- 12) Analyse the roles of assistance (food, cash or other interventions) in the recovery of food insecurity and malnutrition in urban and rural areas, provide a rationale for future WFP interventions, suggest short, medium and long-term strategies, criteria and priorities for targeting;
- 13) Identify opportunities for collaboration (activities and areas) with other actors in the food security sector.

3. Methodology

The CFSVA 2023 provides information, in addition to agriculture, livelihoods, education, health and nutrition, regarding food security and vulnerability situations at the province, rural-urban and gender level. This will help in planning various activities that effectively target the most vulnerable people in the respective provinces. The modules included in the CFSVA are household's information, demographics, agriculture, education, nutrition, livelihoods, food security, health, water, sanitation & hygiene (WASH), shocks, expenditure, coping strategies and impact of disasters.

In view of the main objective of the survey, which is to provide the Government of Burundi and its humanitarian and development partners with up-to-date information to refine policies and programmes to address food security and vulnerability, as well as a baseline analysis for monitoring food insecurity in the coming years.

The methodology used ***mixed methods, combining quantitative and qualitative techniques*** for data collection as well as the use of both quantitative and qualitative secondary data sources.

It covered both rural and urban areas in order to understand the intensity of food insecurity by type of associated livelihood zone (natural regions), provinces and gender.

To this end, four collection components were organized at the same time:

- ✓ Collection from households, based on an interview with the head of household or his wife;
- ✓ Anthropometric measurements (following the SMART methodology) of women aged 15 to 49 years and children under 5 years of age, including morbidity assessment and use of health services;
- ✓ Collection at the community level (hills), to collect overall quantitative and qualitative information on community perceptions on issues of food security, maternal and child health, and nutrition of women and children and their approaches to care and prevention;
- ✓ Collection from markets.

The methodologies described below were used by the INSBU technical survey team in collaboration with international consultants recruited by WFP. The following paragraphs (6.1 to 7.3) relate to the household and community survey. The methodology of the market survey is developed in section 7.4.

3.1. Literature review and qualitative data collection

During this phase, the INSBU team and the international consultants were able to exploit secondary sources of information through the available documentation. Reference was made to previous food security and nutrition surveys conducted by INSBU in collaboration with WFP, UNICEF, FAO, World

Bank as well as other sources such as prices, inflation, etc. A detailed trend analysis was carried out to synchronize the results of the different studies carried out.

These secondary data first made it possible to understand the existing situation and, secondly, helped in the preparation of the protocol (compass) and data collection tools for the survey and helped in the preparation of the information collection phase in the field.

They also capitalize on the guidance provided by the Technical Committee and the Steering Committee of the survey.

3.2. Quantitative survey

The INSBU technical team for the household survey organized a series of interviews with the targeted households using a questionnaire/form with the ODK collect platform.

During this phase, structured interviews were conducted with targeted individuals (heads of households and/or their spouses) to gather information on specific food security and nutrition themes. Anthropometric surveys were conducted on all women of childbearing age (15-49 years) and on all children under 5 years of age who were identified in the sample households.

At the level of the community survey, the monitors organised interviews with one or more key informants from the DA (hill or neighbourhood) using a community questionnaire (see appendix) which takes into account certain open-ended questions to collect some qualitative information.

At the market level, the method of information collection that has been used is structured one-on-one interviews with traders. In each market, information collection was carried out with a sample of 24 traders (retailers, intermediaries, wholesalers, importers) including traders selling mainly food commodities and other non-food items with a market questionnaire.

For each trader, information on the top 3 food items and top 3 non-food items was collected.

The field data collection phase took place over a period of 34 calendar days (from 13 August to 15 September 2023).

3.2.1. Household sampling

The representativeness of a sample is absolutely essential. This is the condition that makes it possible to extend the observations made on the sample to the entire target population. In order for a sample to be representative of the population from which it comes, all individuals in that population must have a chance to appear in it and the choice of one individual must be independent of that of any other individual.

To do this, the methodology for choosing or drawing sample households was probabilistic and random. The following paragraphs detail the calculation of the sample size.

3.2.1.1. Sampling frames

For the household survey, a 2-stage area sampling was carried out: at the 1st stage, it was taken from the Enumeration Areas (EAs) and at the second stage, a sample of 20 households was drawn per sample EA.

The 1st degree sampling frame from which a sample of the EAs was drawn and constituted by the list of EAs by province and municipality from the RGPH 2008.

The second-stage sampling frame was made up of the list of households in the sample EA. The sample households were drawn from the EA sample frame, which consisted of the list of heads of households from a count that was carried out by the survey team prior to the drawing of the household sample.

For the market survey, the sampling frame is the list of markets in Burundi that WFP has made available to INSBU.

3.2.1.2. Sample sizes

The CFSVA 2023 is based on a two-stage sample survey aiming for national representativeness as well as at the level of the 17 provinces and the economic capital Bujumbura as well as by urban and rural areas. The sampling design is aligned with that of the previous survey in 2014.

For each province, taking into account that the indicators to be searched for through the survey are essentially proportions (to express the proportions of individuals and households according to their food and nutrition situation), the formula for calculating the sample size, is as follows:

$$n = \frac{z^2 * p(1 - p) * Deff}{e^2}$$

- *z* = reduced centered normal distribution confidence level (for a 95% confidence level, *z* = 1.96). So, 1.96^2 is 3.84.
- *P*: the estimated proportion of households in food insecurity in the previous survey in 2014 which is 32%;
- *Deff*: sampling effect generally estimated to be 1.5;
- *e*: tolerated margin of error (e.g. we want to know the actual proportion to within 5%: sampling error of 5% (0.05)).

Using a 2014 CFSVA survey with the same themes, the reference *p* proportion for the calculation is *p*=0.32 (proportion of households' food insecure in the previous CFSVA survey of 2014).

Thus, *n*: the theoretical sample size of beneficiary households in each of the 4 provinces is = $(3.84 * 0.32 * 0.68 * 1.5) / (0.05)^2 = 501.3$ rounded to 500 households.

As the urban area is about 14% and the economic capital Bujumbura has a significant weight, 2 blocks or areas are considered in Bujumbura Mairie (Ntakangwa commune in 1 block and Mukaza and Muha communes in another block); This means, in addition to the 17 provinces considered as fields of study, 2 additional clusters are included in study for the survey.

To do this, the overall sample size of households $N = n * 19$, i.e. $500 * 19 = 9500$ households. For a larger spatial distribution of the sample, it is specified that the primary sampling units (enumeration areas-EAs) will include a secondary sample of 20 households.

At the first stage, 475 enumeration areas (EAs) were drawn at unequal probabilities (proportional to size) at the rate of 25 EAs in each domain (17 provinces and 2 blocks in Bujumbura Mairie).

At the second level, 20 households were drawn in each of the sample ZDs of the 17 provinces and the 2 blocks of Bujumbura Mairie, 20 households were selected and in each of the ZDs of Bujumbura Mairie.

The table below shows the distribution of the number of samples EAs and households in the geographic entities to be visited.

Table 2: Sample Frame, CFSVA 2023

Province	1st Degree Sample (EA)			2nd degree sample (households)		
	Rural	Urban	Total	Rural	Urban	Total

Bubanza	24	1	25	480	20	500
Bujumbura City Hall (Mairie)	-	50	50	-	1000	1000
Bujumbura rural	24	1	25	480	20	500
Bururi	24	1	25	480	20	500
Cankuzo	24	1	25	480	20	500
Cibitoke	24	1	25	480	20	500
Gitega	23	2	25	460	40	500
Karuzi	24	1	25	480	20	500
Kayanza	24	1	25	480	20	500
Kirundo	24	1	25	480	20	500
Makamba	24	1	25	480	20	500
Muramvya	24	1	25	480	20	500
Muyinga	24	1	25	480	20	500
Mwaro	24	1	25	480	20	500
Ngozi	24	1	25	480	20	500
Rumonge	24	1	25	480	20	500
Rutana	24	1	25	480	20	500
Ruyigi	24	1	25	480	20	500
Grand Total	407	68	475	8140	1360	9500

The survey was able to cover 475 EAs, of which 407 were rural and 68 were urban. This representation of the environment is proportional to the respective demographic weight of the 2 environments (nearly 14% for urban areas and 86% for rural areas). As a result, the sample of households is 9500 households, including 8140 rural households and 1360 urban households.

3.2.1.3. Sample Drawing

1st Degree Draw

The sample EAs were drawn on the basis of the list of EAs of the 17 provinces and Bujumbura Mairie (total 18 clusters) organized in rural and urban areas. The sampling frame is organized by province, municipality, hill/or district. To conduct the probability proportional to size random draw, the draw step for each province was determined by dividing the cumulative population size of all EAs in each constituent entity in each domain by the number of samples EAs in the same entity. The result of this division is called no poll. Thus, to obtain the 1st sample EA, an integer random number between 1 and the calculated sampling step (1 and the sampling step can be drawn) was chosen. Thus, the 1st sample EA was the one whose cumulative number on the frame list corresponds to the whole number drawn or is closest to it between 1 and the sampling step. The 2nd sample EA was whose cumulation on the list corresponds to the result of the sum between the cumulation corresponding to the 1st sample EA and the sampling step. The 3rd sample EA was the one whose cumulation on the list corresponds to the result of the sum between the cumulation corresponding to the

2nd EA sample and the sampling step and so on until we had the number of 25 EA samples from each province and the 2 blocks of the Bujumbura City Hall. This exercise will be done in the office and will allow you to have the list of 1st degree sample EAs.

2nd Degree Draw

The second-stage draw was carried out using the systematic sampling method with equal probability, but this time with the numbered list of heads of households for each sample EA after their enumeration. To conduct random draw with equal probability, the draw step for each EA will be determined by dividing the number of households in the sample EA by 20 (the number of households to be surveyed). The result of this division is called no poll. Thus, to obtain the 1st sample household, we will choose a random integer number between 1 and the calculated sampling step (1 and the sampling step that can be drawn). Thus, the 1st sample household will be the one whose cumulative number on the sampling frame list corresponds to the whole number drawn or is closest to it between 1 and the sampling step. The 2nd sample household will be the one whose cumulative on the list corresponds to the result of the sum between the cumulative amount corresponding to the 1st sample household and the sampling step. The 3rd sample household will be the one whose cumulation on the list corresponds to the result of the sum between the cumulation corresponding to the 2nd sample household and the sampling step and so on until we have the 20 sample households of each sample EA of the 1st degree. This exercise was done by the team leader immediately after the enumeration of households in the field.

3.3. Market Survey Methodology

A market survey was conducted for the calculation of the Market Functionality Index (MFI). The MFI is a WFP market assessment approach that aims to quantify market functionality by calculating a score (0 to 10) per market, while identifying weaknesses or areas of intervention to ensure the continuity or effectiveness of different modalities of WFP's assistance to vulnerable populations.

3.3.1. Sampling

A sampling frame available at WFP was used and consists of 105 contracts. A sample of 30 markets in the country's 18 provinces will be studied. The choice was reasoned and thus, the markets of the capitals as well as the main rural and border markets are selected as a priority. A total of 744 traders in 31 markets were surveyed. The list of sample markets is as follows:

Table-3 Selected markets for market survey, CFSVA 2023

No	Province	Commune	Walking
1	Cibitoke	Rugombo	Rugombo
2	Bubanza	Mpanda	Musenyei
3	Bujumbura-Mairie	Muha	Kanyosha
4	Bujumbura-Mairie	Ntakangwa	Siyoni
5	Bujumbura-Mairie	Ntakangwa	Kamenge
6	Rumonge	Burambi	Burambi
7	Rumonge	Rumonge	Rumonge
8	Makamba	Nyanza-Lake	Muyange
9	Makamba	Makamba	Makamba

10	Makamba	Kayogoro	Kayogoro
11	Bururi	Bururi	Bururi
12	Bururi	Matana	Matana
13	Rutana	Rutana	Rutana
14	Rutana	Giharo	Rubaho
15	Ruyigi	Ruyigi	Ruyigi
16	Ruyigi	Gisuru	Gisuru
17	Cankuzo	Cankuzo	Cankuzo
18	Cankuzo	Cendajuru	twinkwavu
19	Muyinga	Muyinga	Muyinga
20	Muyinga	Giteranyi	Giteranyi
21	Gitega	Gitega	Gitega
22	Karusi	Buhiga	Buhiga
23	Karusi	Nyabikere	Nyabikere
24	Ngozi	Ngozi	Ngozi
25	Ngozi	Kiremba	Masanganzira
26	Kirundo	Kirundo	Kirundo
27	Kirundo	Bwambarangwe	Mukenke
28	Kayanza	Kayanza	Kayanza
29	Bujumbura	Mubimbi	Kinama
30	Muramvya	Muramvya	Muramvya
31	Mwaro	Kayokwe	Mwaro

3.4. Data collection tools

To achieve the above objectives, the survey covered all 17 provinces and the Bujumbura City Hall.

The target groups differ according to the modules of the CFSVA. Indeed, this survey was organized into four parallel surveys, including:

- (i) a household survey, which targeted the head of household or his wife through an interview and collection of information through a household questionnaire;
- ii) an anthropometric survey using the SMART methodology targeted women aged 15 to 49 years and children under 5 years of age (all women aged 15 to 49 years and all children aged 0 to 59 months identified in the sample households;
- (iii) a community-based survey at the hill level in the form of focus groups targeted key informants (community members, local administration, health personnel, etc.) to collect qualitative information on people's perceptions of food security, maternal and child health, and nutrition issues and their approaches to care and prevention;

and (iv) a market survey, covering major markets in all provinces of the country focusing on the traders.

The household questionnaire (household and anthropometric components) was developed to support data collection according to the methodology described above and including questions taking into account all the information to be sought. This questionnaire, accompanied by a free and informed consent form, is structured in as many sections as there would be areas of investigation that are identified to highlight the food security and nutrition situation in Burundi during 2023.

The questionnaire and the group discussion guide were submitted for analysis and validation by the technical committee in the first step and by the steering committee of the survey in the end. The household questionnaire and the guide are translated into Kirundi so that the interviewers use the same language in an effort to reduce variance related to human error.

A community questionnaire was developed to support the collection of overall data from key informants, representatives of the hills that will be visited (including 1st degree sample FDs) including hill chiefs and other key informants from the hills (moms, CHWs) who can support and complement the hill leader in terms of food security, maternal and child health and nutrition.

The Market Functionality Index (MFI) methodology is a WFP market assessment approach that aims to quantify market functionality by calculating a score per market, while identifying weaknesses or areas of intervention to ensure continuity or effectiveness of assistance.

In the same context of the survey, a market questionnaire according to the WFP standard methodology was developed and the questions contained therein are organized into nine dimensions considered crucial for making a judgement on the functionality of the market. These dimensions are: (i) Assortment; (ii) Availability; (iii) Prices; (iv) Resilience; (v) Competition; (vi) Infrastructure; (vii) Services; (viii) Food quality; (ix) Access and Protection.

The interviewers and Controller/team leaders were also provided with a manual which contains instructions on the attitude to be taken by the interviewers, controllers and on how to interview and administer the household questionnaires, the questionnaires marketed by the interviewers and how to conduct the interview with key informants (community representatives) by the controllers/team leaders. All these documents are annexed to this report.

3.5. Organization/management of the survey

Under the leadership and guidance of the Steering Committee, assisted by the Technical Committee, the survey was technically conducted and organized under the main responsibility of the General Directorate of the INSBU. To this end, a technical team of 5 experts (including the Director-General and 4 statistician-informatics experts) provided design, data collection supervision, analysis and contributed to the preparation of the survey report with an international consultant recruited by WFP. The latter worked closely with the INSBU technical team from the preparatory phases, through the analysis, the drafting of the survey report to its validation and dissemination.

Other categories of personnel were able to intervene in the survey process and performed mainly in the data collection phase in the field. These are:

- A national consultant on the anthropometry component;
- Controllers/Team Leaders;
- Investigators and;
- Local guides.

3.5.1. Steering Committee

The general coordination of the survey was ensured by the Steering Committee supported by the technical committee set up by the Minister of the Environment, Agriculture and Livestock (MINEAGRIE).

The steering committee is composed of senior officials from the public sector (MINEAGRIE, the Ministry of Public Health and the Fight against AIDS (MSPLS), the Ministry in charge of Finance and Planning, the SEP of the Multisectoral Platform for Food Security and Nutrition) and representatives of WFP, UNICEF, FAO. Its terms of reference state that it is responsible for coordinating activities related to the investigation.

3.5.2. Technical committee

The technical committee is also inter-ministerial in the light of the Steering Committee and was also set up by the Minister of the Environment, Agriculture and Livestock (MINEAGRIE). It was composed of technical managers from the public sector (MINEAGRIE, the Ministry of Public Health and the Fight against AIDS (MSPLS), the Multisectoral Platform for Food Security and Nutrition, INSBU), representatives of WFP, UNICEF, FAO, FEWS NET

3.6. Training and data collection,

Survey officers and team leaders underwent 6 days of classroom training using a manual and this training covered the content of all sections of the questionnaire (household, community and market). The training was provided by members of the INSBU technical team. In particular, the market level investigators were previously trained for 2 days on the theme of markets, collection tools and survey techniques. They also attended the training on the household survey.

This training focused on:

- ✓ A common understanding of the content of the questionnaire and interview guide;
- ✓ The method of interviewing and completing the said questionnaire and guide on a tablet;
- ✓ The method of saving, verifying/controlling, and sending the data to the server.

3.6.1. Pilot Survey

At the end of the theoretical training, a 2-day pilot survey was conducted. The evaluation of the results of the latter allowed lessons to be learned that are necessary to finalize the data collection tools.

3.7. Duration and collection plan

At the household level, the enumeration and data collection lasted in 34 calendar days, over a month for 133 enumerators, including 38 anthropometer agents.

With regard to routes, a plan for the deployment of the data collection teams has been drawn up and has made it possible for each team to know where and when (route and schedule) it will visit the different data collection EAs.

The controller/team leader, in consultation with the local guide at the level of each collection EA, assigned to each enumerator the sampled households to be visited and surveyed each day.

At the community level, 19 controllers administered the community questionnaire in the EAs to be visited, each controller administered 25 community questionnaires during the 34 days of collection in addition to their team management responsibilities.

At the market level, the information was collected by a team of 4 investigators. The team visited one (1) market per day.

The collection of field data in the markets was planned according to the frequency of market activity in the provinces.

The duration of data collection was 34 days for all teams. The survey took place from 14 August to 16 September 2023 (inclusive).

3.8. Data processing and analysis

For the quantitative survey, since the household questionnaire was digitized and the data were gradually transmitted online via the ODK collect platform, immediately after data collection, the raw database was stored. The qualitative data were also digitized and synthesized in the database, which was used to derive qualitative information to be triangulated with the quantitative data. Completeness, consistency and plausibility tests were carried out on the files by the Consultant and the technical team in order to obtain the file cleaned up through SPSS. From the cleaned database file, the tabulation was performed in SPSS to produce the data tables necessary for the analysis.

Data were analysed using the Statistical Package for Social Science (SPSS) and Emergency Nutrition Assessment software (ENA) for the MUAC and anthropometric component. The data were analyzed in a descriptive manner with a focus on the main themes as presented in the table of contents. These were triangulated with qualitative data from the Community survey, the market survey and the literature review (secondary data) to prepare this overall survey report.

Consolidated Approach for Reporting Indicators of Food Security (CARI) guidelines are used for the food security analysis. According to the CARI guidelines the household's food consumption (measured through the Food Consumption Score), coping capacity (measured through the Coping Strategy Index) and the share of monthly expenses devoted to food, households are classified into one of the four food security categories.

The above CARI modules have been followed in the food security analysis of the CFSVA 2023 and presented in this report.

3.9. Weighting procedure

The weights are useful in the computation of sampling errors for key estimates. For us to examine the statistical efficiency of the design, it is important to tabulate the sampling errors, confidence intervals and design effects for key estimates from the Survey data. The design effect, a ratio of the variance of an estimate from the actual sample design and the corresponding variance from a simple random sample of the same size, is a measure of the relative efficiency of the sample design, which mostly depends on the clustering effect. Accounting for clustering and stratification, the final household weights were used in the analysis, tabulation of standard errors, 95% confidence intervals and design effects for selected indicators (key estimates) based on the stratified two-stage sample design.

Data were analysed using the Statistical Package for Social Science (SPSS) and Emergency Nutrition Assessment software (ENA) for the MUAC and anthropometric component.

Consolidated Approach for Reporting Indicators of Food Security (CARI) guidelines are used for the food security analysis. According to the CARI guidelines the household's food consumption (measured through the Food Consumption Score), coping capacity (measured through the Coping Strategy Index) and the share of monthly expenses devoted to food, households are classified into one of the four food security categories.

The above CARI modules have been followed in the food security analysis of the CFSVA 2023 and presented in this report.

3.10. Coverage

The CFSVA 2023 covered 9494 households out of 9500 (99.9%) with complete interviews.

Table-4 Target and achievements, CFSVA 2023

Category	Area	Target	Reached	children 6-59 months in house	Children 5-17 years	Female s 15-49
Province	Bubanza	500	500	340	1089	662
	Bujumbura mairie	1000	1000	444	1024	1425
	Bujumbura rural	500	496	342	1066	671
	Bururi	500	497	272	730	556
	Cankuzo	500	500	320	670	484
	Cibitoke	500	500	304	880	538
	Gitega	500	500	337	768	599
	Karusi	500	501	445	954	566
	Kayanza	500	500	321	865	519
	Kirundo	500	500	380	689	457
	Makamba	500	500	364	965	600
	Muramvya	500	500	327	900	591
	Muyinga	500	500	395	708	398
	Mwaro	500	500	288	854	574
	Ngozi	500	501	344	804	518
	Rumonge	500	499	274	891	606
	Rutana	500	500	396	887	565
	Ruyigi	500	500	403	861	517
Sex of HH head	Female		1723	541	2122	1730
	Male		7771	5755	13483	9116
Area category:	Rural		8080	5588	13907	8924
	Urban		1414	708	1698	1922
	Total	9500	9494	6296	15605	10846

In the houses interviewed, MUAC and anthropometric measurement was taken for the children 6-59 months of age. In these houses, total 6296 children of 6-59 months of age, 15605 children of age 5-17 years and 10846 females 15-49 years of age were found.

Chapter 2: General and sectoral information

1. Introduction

The sample design is representative at the province level, therefore, the information about the households is aggregated at the province level. There are 18 provinces in Burundi, where Bujumbura is urban and partly Gitega, while each province has an urban part with limited population. However, except Bujumbura Mairie, all other provinces are pre-dominantly rural.

This chapter includes the households related basic information.

2. Size of households

According to the CFSVA 2023, the average household's size is 5 persons. In rural areas, it accounts for 5 while 4.9 persons in urban. The female-headed households have a smaller size comprised of 3.6 persons per household while 5.3 for male-headed.

The provinces vary about the household size. Among the provinces, the largest size was reported in Bujumbura Rural at 5.7 persons, followed by Bubanza at 5.5 and Makamba 5.3 persons.

The smallest household size was reported in Cankuzo at 4.2, followed by Muyinga and Kirundo both at 4.5 and Ngozi at 4.6 persons.

In rural set up of Burundi, the household size matters, especially for farming in providing more hands for physical work. The farming in Burundi is extremely labour intensive, where over 99 percent of cultivation depends on hand tools with primitive methods of farming¹¹.

3. Gender of households' head

CFSVA 2023 found that on average 18.1 percent of the households are headed by women in Bujumbura. The percentage of women headed household is higher in urban areas at 20.6 percent compared to rural at 17.7 percent.

The majority of female-headed households in urban areas are involved in petty trading and small businesses with subsistence income sources. Many of them are single parents and overburdened with multiple tasks while taking care of children as well as of work.

Table-6 Sex of the Head of household, CFSVA 2023

Category	Area	Female	Male
Province	Bubanza	16.6%	83.4%
	Bujumbura mairie	21.6%	78.4%
	Bujumbura rural	13.1%	86.9%
	Bururi	11.3%	88.7%
	Cankuzo	18.8%	81.2%
	Cibitoke	18.6%	81.4%
	Gitega	22.0%	78.0%
	Karusi	17.4%	82.6%
	Kayanza	18.4%	81.6%
	Kirundo	26.2%	73.8%
	Makamba	17.0%	83.0%
	Muramvya	15.8%	84.2%
	Muyinga	17.6%	82.4%
	Mwaro	23.2%	76.8%
	Ngozi	19.2%	80.8%
Area category :	Rumonge	17.4%	82.6%
	Rutana	15.6%	84.4%
	Ruyigi	13.4%	86.6%
	Rural	17.7%	82.3%
	Urban	20.6%	79.4%
	Total	18.1%	81.9%
	Province		
	Karusi		
	Kayanza		
	Kirundo		
	Makamba		
	Muramvya		
	Muyinga		
	Mwaro		
	Ngozi		
	Rumonge		
	Rutana		
	Ruyigi		
	Sex of HH head		
	Female		
	Male		
	Area category:		
	Rural		
	Urban		
	Total		

¹¹ CFSVA 2023 finding.

Both in Gitega and Bujumbura Mairie, the percentage of female-headed households is much higher than country average as 22 and 21.6 percent respectively being urban areas.

Among provinces, the highest percentage of women headed households is found in Kirundo at 26.2 percent, followed by Mwaro at 23.2 percent, Ngozi at 19.2 percent and Cankuzo at 18.8 percent. On the other hand, Bururi has the lowest percentage of female-headed households at 11.3 percent, followed by Bujumbura Rural at 13.1 percent and Ruyigi at 13.4 percent.

4. Age of households' head

Age is another factor of farming keeping in view the experience in farming and level of productivity.

The head of the households are grouped in 5 groups, namely 20 years & above, 21-40 years, 41-60 years, 61-80 years and 80 years & above.

Table-7 Age group of household head, CFSVA 2023

Category	Area	20 yrs and below	21-40	41-60	61-80	81 and above
Province	Bubanza	4.2%	59.4%	25.3%	11.0%	0.2%
	Bujumbura mairie	8.7%	61.9%	19.6%	9.4%	0.4%
	Bujumbura rural	5.8%	46.8%	29.0%	16.9%	1.4%
	Bururi	4.0%	40.2%	37.2%	17.7%	0.8%
	Cankuzo	4.4%	49.4%	29.6%	15.8%	0.8%
	Cibitoke	7.0%	51.2%	28.8%	11.8%	1.2%
	Gitega	2.4%	54.0%	29.0%	12.8%	1.8%
	Karusi	3.6%	58.7%	25.5%	10.8%	1.4%
	Kayanza	5.2%	45.4%	31.6%	16.2%	1.6%
	Kirundo	7.0%	53.8%	24.6%	12.4%	2.2%
	Makamba	7.2%	51.8%	29.2%	10.6%	1.2%
	Muramvya	2.8%	42.6%	35.0%	18.0%	1.6%
	Muyinga	3.0%	51.6%	29.4%	13.4%	2.6%
	Mwaro	3.8%	42.4%	32.2%	19.2%	2.4%
	Ngozi	2.8%	54.9%	24.4%	14.8%	3.2%
	Rumonge	4.2%	49.7%	30.7%	13.6%	1.8%
	Rutana	3.6%	57.8%	25.4%	12.2%	1.0%
	Ruyigi	1.6%	53.8%	28.6%	15.0%	1.0%
Sex of HH head	Female	5.6%	33.3%	31.8%	25.8%	3.6%
	Male	4.2%	57.1%	26.7%	10.6%	1.4%
Area category:	Rural	4.0%	51.4%	28.4%	14.2%	2.0%
	Urban	8.2%	61.5%	22.1%	7.8%	0.4%

Total	4.5%	52.5%	27.7%	13.5%	1.8%
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The highest percentage of households' heads are between 21 and 40 years of age (52.5 percent). The second higher group is of 41-60 years of age. Male headed households are majority in age group of 21-40 years, while female headed households are split between 21-40- and 41-60-years age groups. There is no big difference between urban and rural head of households age group. The highest percentage of young (21-40) head of households is found in Bujumbura Mairie at 61.9 percent, followed by Bubanza at 59.4 percent. The old age (61-80) group is more in Mwaro at 19.2 percent followed by Muramvya at 18 percent.

5. House structure

People with better economic status, normally build a better house for living, while poor people live in a low-quality house. Thus, the house structure reflects the status of people living in it. According to the CFSVA 2023, a great majority of the households (59.8 percent) have metal sheet/ tin and 28 percent tile roof. However, 10.4 percent has straw/leaves roofs and 1.8 percent has plastic sheet or no roofing at all. The majority of households with no or temporary roofing are in Cibitoke at 26.6 percent, followed by Ruyigi at 21 percent and Karusi at 19.6 percent. Almost all such households are in rural areas. It shows that severe poverty is in rural areas and especially in the above provinces.

Table-8 Type of roof of the house living in, CFSVA 2023

Category	Area	Other (please specify)	Plastic sheets	Roof tiles	Sheet metal	Straw/Palm/Banana leaves	Tents	Without roof (open air)
Province	Bubanza	0.4%	0.0%	25.5%	61.2%	11.6%	1.2%	0.2%
	Bujumbura mairie	0.0%	0.1%	1.3%	98.4%	0.1%	0.1%	0.0%
	Bujumbura rural	0.0%	0.0%	7.6%	87.2%	3.6%	1.2%	0.4%
	Bururi	0.0%	0.2%	15.9%	75.3%	7.6%	1.0%	0.0%
	Cankuzo	0.0%	0.0%	14.2%	71.2%	14.0%	0.6%	0.0%
	Cibitoke	1.6%	0.2%	11.8%	61.6%	23.8%	1.0%	0.0%
	Gitega	1.4%	0.4%	48.6%	41.0%	8.4%	0.0%	0.2%
	Karusi	0.0%	0.0%	51.3%	29.1%	18.8%	0.2%	0.6%
	Kayanza	0.6%	0.0%	91.6%	6.0%	1.8%	0.0%	0.0%
	Kirundo	0.0%	0.4%	18.2%	66.4%	13.6%	1.4%	0.0%
	Makamba	0.0%	0.2%	5.6%	84.0%	9.8%	0.2%	0.2%
	Muramvya	0.0%	0.2%	78.0%	17.2%	3.8%	0.4%	0.4%
	Muyinga	0.8%	0.4%	22.0%	60.6%	15.4%	0.8%	0.0%
	Mwaro	0.0%	0.0%	68.4%	23.2%	8.4%	0.0%	0.0%
	Ngozi	0.2%	0.4%	70.1%	21.2%	8.0%	0.2%	0.0%
	Rumonge	0.0%	0.4%	0.2%	85.4%	13.2%	0.8%	0.0%
	Rutana	0.0%	0.6%	1.8%	82.4%	14.8%	0.4%	0.0%
	Ruyigi	0.0%	0.0%	12.0%	67.0%	20.8%	0.0%	0.2%
Sex of HH head	Female	0.1%	0.2%	27.8%	58.2%	12.9%	0.6%	0.2%
	Male	0.3%	0.2%	28.9%	60.2%	9.8%	0.5%	0.1%
Area category:	Rural	0.3%	0.2%	32.7%	53.9%	12.2%	0.6%	0.1%
	Urban	0.0%	0.1%	5.9%	93.5%	0.4%	0.2%	0.0%
Total		0.3%	0.2%	28.7%	59.8%	10.4%	0.5%	0.1%

The exterior wall is an important part of the house structure. The CFSVA 2023 found that 23.9 percent of households have bricks wall, majority in urban (54.4 percent). On the other hand, 69.3 percent has adobe bricks (mudbricks) walls, majority in rural (74 percent). A significant percentage of urban households (41.9

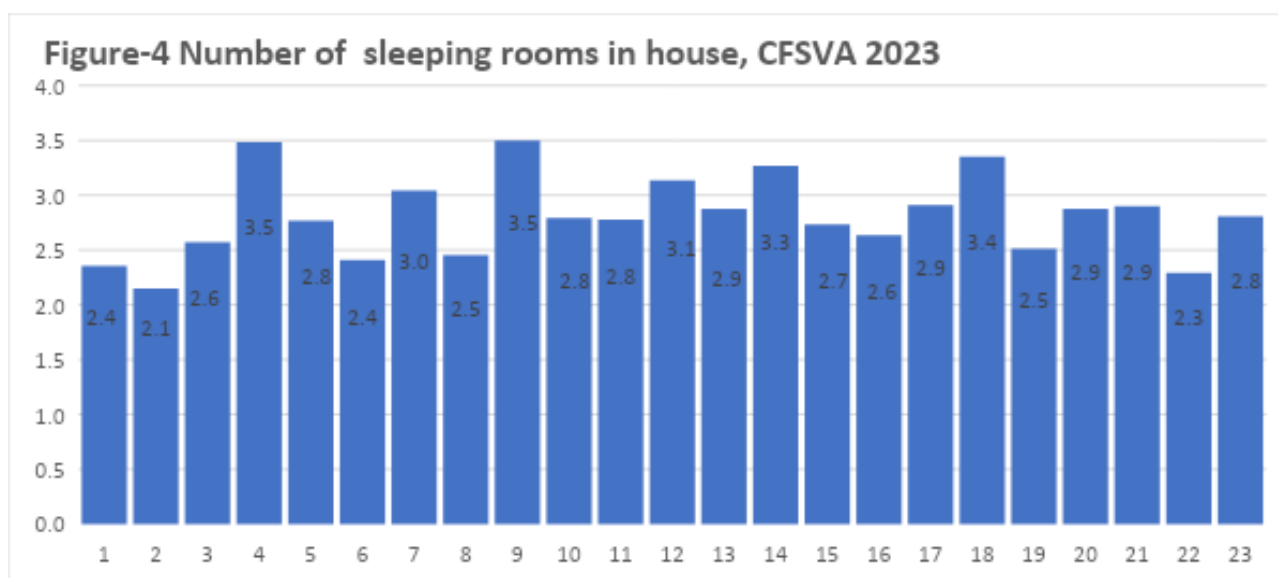
percent) also have adobe bricks walls. The highest percentage of households with wood/bamboo walls was found in Kirundo (19 percent), followed by Muyinga (18 percent). The highest percentage of mudbricks wall was in Karusi (94.6 percent), followed by Muramvya (93.4 percent) and Ngozi (92.2 percent). The lowest percentage of households with mudbricks was reported in Makamba (28.2 percent), followed by Rumonge (37.3 percent) and Bujumbura Mairie (38.4 percent).

Table-9 Type of exterior wall of the house living in, CFSVA 2023

Category	Area	Adobe bricks	Bricks	Concrete	Others	Plastic sheets/tarps	Stones/Cobblestones	Wood/Bamboo/Reeds
Province	Bubanza	85.5%	7.0%	0.4%	0.0%	0.0%	0.0%	7.2%
	Bujumbura mairie	38.4%	58.7%	0.2%	0.2%	0.0%	2.4%	0.1%
	Bujumbura rural	69.0%	25.6%	0.8%	0.2%	0.0%	0.8%	3.6%
	Bururi	53.7%	40.4%	0.0%	0.0%	0.2%	0.4%	5.2%
	Cankuzo	74.4%	18.2%	2.0%	0.0%	0.0%	0.8%	4.6%
	Cibitoke	78.6%	13.2%	2.0%	2.0%	0.2%	0.2%	3.8%
	Gitega	80.2%	18.8%	0.0%	0.0%	0.0%	0.0%	1.0%
	Karusi	94.6%	2.2%	0.0%	0.0%	0.0%	0.0%	3.2%
	Kayanza	91.6%	7.8%	0.0%	0.0%	0.0%	0.4%	0.2%
	Kirundo	74.4%	4.0%	0.0%	2.4%	0.2%	0.0%	19.0%
	Makamba	28.2%	59.6%	0.6%	7.2%	0.0%	2.0%	2.4%
	Muramvya	93.4%	5.4%	0.0%	0.0%	0.0%	0.6%	0.6%
	Muyinga	76.4%	5.0%	0.0%	0.2%	0.2%	0.2%	18.0%
	Mwaro	89.8%	2.4%	2.6%	0.0%	0.0%	0.2%	5.0%
	Ngozi	92.2%	3.4%	0.0%	0.4%	0.0%	0.0%	4.0%
	Rumonge	37.3%	51.1%	6.2%	0.0%	0.0%	0.2%	5.2%
	Rutana	51.4%	42.8%	2.4%	0.0%	0.2%	0.0%	3.2%
	Ruyigi	68.0%	30.8%	0.0%	0.0%	0.0%	0.6%	0.6%
Sex of HH head	Female	72.4%	19.3%	0.8%	0.6%	0.2%	0.5%	6.2%
	Male	68.6%	25.0%	1.0%	0.7%	0.0%	0.6%	4.2%
Area category	Rural	74.0%	18.6%	0.9%	0.8%	0.1%	0.4%	5.3%
	Urban	41.9%	54.4%	1.2%	0.2%	0.0%	1.9%	0.4%
Total		69.3%	23.9%	0.9%	0.7%	0.1%	0.6%	4.6%

6. Living rooms

In Burundi, per CFSVA 2023, the average number of living rooms per household is 2.8, less in urban at 2.3 compared to rural at 2.9. Female-headed households have 2.5 rooms on average, while male-headed 2.9.



The highest number of rooms per household are found in Bururi and Kayanza at 3.5 each, while lowest in Bujumbura Mairie at 2.1. The CFSVA 2013 witnessed that households in urbanised provinces have fewer rooms per household because of the family size and the higher cost of house rent.

Normally, the number of rooms is linked to the number of people living in a house. However, in practice, it is

Table-10 Persons per sleeping room in houses, CFSVA 2023

Category	Area	=<1	2-4	5-7	8 & above
Province	Bubanza	7.8%	87.6%	4.4%	0.2%
	Bujumbura mairie	11.9%	78.9%	8.3%	0.9%
	Bujumbura rural	11.2%	83.6%	5.0%	0.2%
	Bururi	37.0%	62.0%	1.0%	0.0%
	Cankuzo	32.6%	65.6%	1.8%	0.0%
	Cibitoke	12.6%	82.6%	4.2%	0.6%
	Gitega	27.4%	71.6%	1.0%	0.0%
	Karusi	15.4%	82.8%	1.8%	0.0%
	Kayanza	35.2%	63.8%	1.0%	0.0%
	Kirundo	27.8%	69.2%	3.0%	0.0%
	Makamba	19.0%	78.0%	3.0%	0.0%
	Muramvya	27.0%	72.0%	1.0%	0.0%
	Muyinga	29.6%	68.4%	2.0%	0.0%
	Mwaro	33.4%	66.0%	0.6%	0.0%
	Ngozi	21.2%	77.2%	1.6%	0.0%
	Rumonge	19.6%	76.0%	3.8%	0.6%
	Rutana	21.8%	75.6%	2.4%	0.2%
	Ruyigi	35.4%	63.6%	0.8%	0.2%
Sex of HH head	Female	40.7%	57.1%	2.0%	0.1%
	Male	19.1%	77.6%	3.1%	0.2%
Area category:	Rural	24.6%	73.1%	2.1%	0.1%
	Urban	13.9%	78.0%	7.4%	0.6%
Total		23.0%	73.9%	2.9%	0.2%

associated with the economic capacity of the households to have adequate rooms according to the size of the households. According to CFSVA 2023, in Burundi, the majority of households have 1 room for 2-4 persons (73.9 percent) and 3.1 percent have only 1 room for 5 and more persons in the house. Only 23 percent of households have 1 room for each person to sleep in. This human congestion is a symbol of poverty and also cause of many respiratory and contaminated diseases in the house.

The highest percentage of households with high congestion was found in Bujumbura Mairie at 8.3 percent with 1 room for 5-7 persons, followed by Bujumbura Rural at 5 percent and Bubanza at 4.4 percent.

7. Sources of light at the house

Electricity is quite rare in the country and mostly limited to urban areas. According to the CFSVA 2023, 77.9 percent of the household use electricity for lighting in urban areas, while this percentage is only 3.2 percent in rural. The major source of light in rural areas is battery lamps used by 58.9 percent, followed by solar lamps by 22.3 percent and wooden fleece by 10.8 percent.

Among provinces, the highest percentage of households using electricity is in Bujumbura Mairie at 87.1 percent, followed by Gitegat at 17 percent and Bujumbura Rural at 16.5 percent. The highest percentage of households using sources other than electricity for lights is in Ruyigi at almost 100 percent, followed by Mwaro at 99 percent, Makamba at 99 percent, Karusi at 98.6 and Ngozi at 98.4 percent.

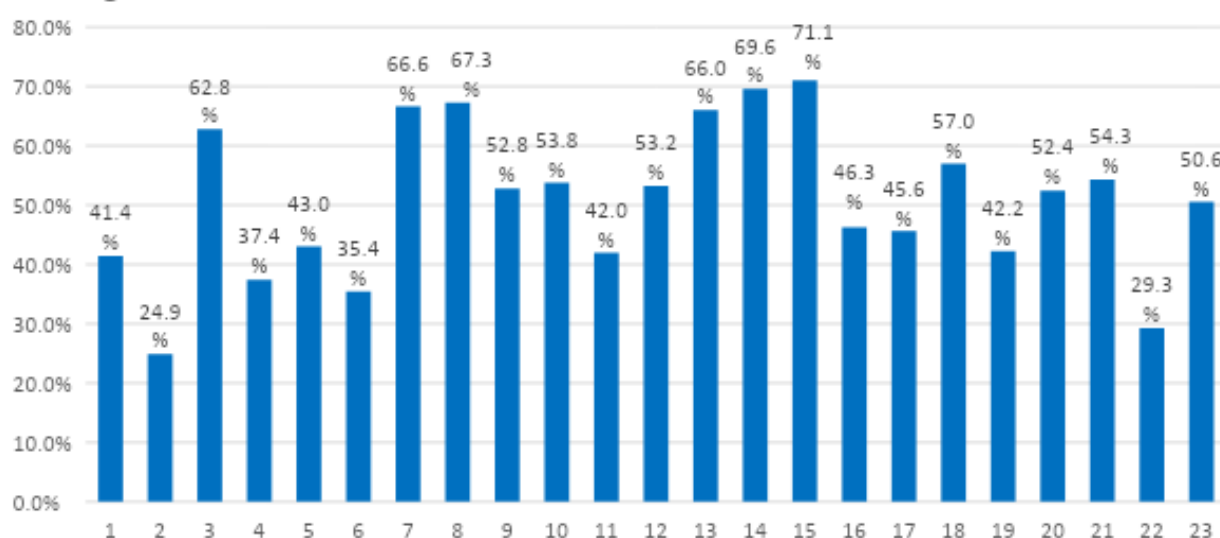
Table-11 Source of light in house, CFSVA 2023

Category	Area	Battery lamp	Electricity	Lighter	Oil lamp	Other	Rechargeable torch	Solar lamp	Wooden fleece
Province	Bubanza	55.0%	12.4%	0.2%	1.2%	1.2%	11.4%	11.0%	7.6%
	Bujumbura mairie	7.4%	87.1%	0.0%	0.4%	0.7%	0.3%	3.7%	0.4%
	Bujumbura rural	54.6%	16.5%	0.0%	1.2%	0.8%	0.2%	23.4%	3.2%
	Bururi	32.6%	3.8%	0.0%	1.0%	0.2%	9.1%	41.2%	12.1%
	Cankuzo	58.8%	1.8%	0.6%	0.2%	3.2%	2.4%	26.6%	6.4%
	Cibitoke	67.6%	7.4%	0.4%	0.6%	1.2%	0.2%	10.6%	12.0%
	Gitega	43.0%	17.0%	0.4%	0.6%	2.6%	11.8%	13.4%	11.2%
	Karusi	69.7%	1.4%	0.0%	0.2%	3.6%	0.0%	12.0%	13.2%
	Kayanza	45.8%	13.4%	0.2%	1.0%	0.0%	0.2%	18.8%	20.6%
	Kirundo	61.0%	2.4%	0.0%	0.4%	0.6%	0.8%	8.6%	26.2%
	Makamba	35.4%	1.0%	0.6%	0.8%	0.8%	3.2%	55.0%	3.2%
	Muramvya	50.6%	2.4%	0.2%	2.6%	0.4%	1.6%	28.8%	13.4%
	Muyinga	67.4%	3.0%	0.0%	0.4%	0.6%	0.8%	18.0%	9.8%
	Mwaro	62.0%	1.0%	0.0%	0.2%	2.4%	1.2%	23.8%	9.4%
	Ngozi	69.5%	1.6%	0.0%	0.6%	0.4%	1.2%	18.4%	8.4%
	Rumonge	57.5%	9.0%	0.0%	0.2%	0.2%	1.2%	27.5%	4.4%
	Rutana	64.4%	3.6%	0.2%	0.4%	0.8%	0.8%	24.0%	5.8%
	Ruyigi	79.4%	0.0%	0.2%	0.2%	1.2%	0.4%	9.4%	9.2%
Sex of HH head	Female	52.4%	15.2%	0.3%	0.7%	1.1%	2.3%	11.5%	16.5%
	Male	52.0%	14.1%	0.1%	0.7%	1.1%	2.5%	21.7%	7.7%
Area category	Rural	58.9%	3.2%	0.2%	0.7%	1.2%	2.7%	22.3%	10.8%
	Urban	12.7%	77.9%	0.0%	0.6%	0.7%	1.0%	6.0%	1.0%
Total		52.1%	14.3%	0.2%	0.7%	1.1%	2.5%	19.9%	9.3%

8. Credit Union or Association

Access to credit is an issue, especially in rural areas and by small farmers. Thus, in order to solve this problem, credit unions or associations are becoming part of the daily business to provide access to people for loans during needs. The CFSVA 2023 examined this window of opportunity. Overall, 50.6 percent of households are part of the credit unions/associations, a majority in rural at 54.3 percent. This percentage is lower in female-headed households compared to male-headed households. The highest percentage of households associated with any credit union/association is in Ngozi at 71.1 percent, followed by Mwaro at 69.6 percent and Karusi at 67.3 percent. Some of the provinces have lower percentage of household access to credit unions. Such provinces should be further investigated to find the hurdles in accessing the credit line.

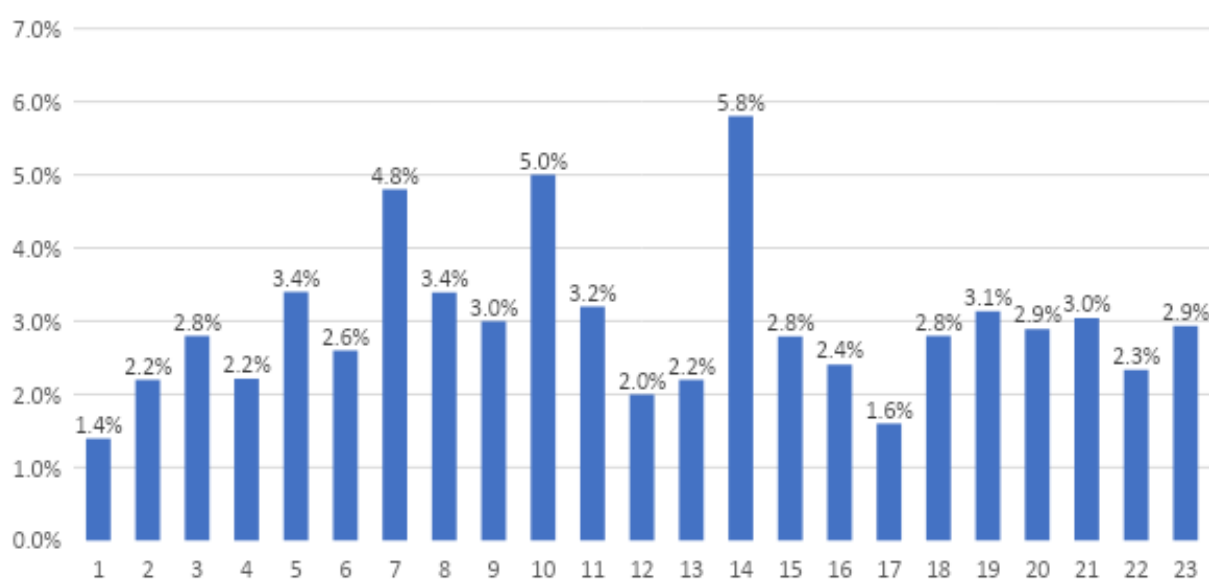
Figure-5 Part of a credit union/ credit association, CFSVA 2023



9. Disability of household's head

Disability is an issue of households' vulnerability. In Burundi, overall, 2.9 percent of the household's heads have a disability. The percentage of disabled is higher in female-headed compared to male-headed households (3.1 VS 2.9 percent). Among provinces, the highest percentage of disabled heads is in Mwaro at 5.8 percent, followed by Kirundo at 5 percent and Gitega at 4.8 percent. These provinces with higher percentage of disabled heads of households should be assessed for targeting such vulnerable people.

Figure-6 Households with disability, CFSVA 2023



CHAPTER 3: Food Security in Burundi

1. Food Security

Per definition, "Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, 1996).

Comprehensive Food Security and Vulnerability Analysis (CFSVA) considers food availability, food access, and food utilization as core elements of food security, and links them to households' asset endowments, livelihood strategies, and political, social, institutional, and economic environment. The interaction among a broad range of agro-environmental, socio-economic, and biological factors typically determines the food security status of any household or individual. The complexity of the food security problem can be simplified by focusing on three distinct, but interrelated, dimensions: aggregate food availability, household food access, and individual food utilization.

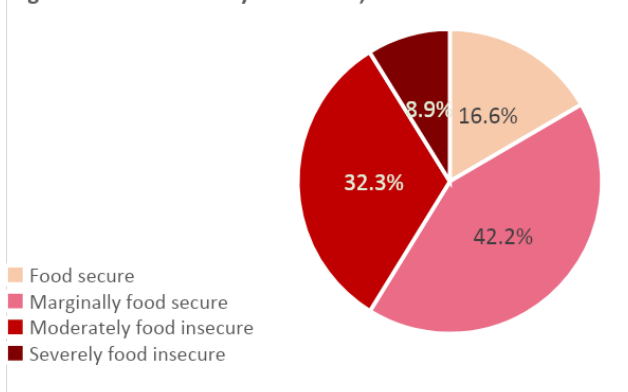
To calculate the level of food insecurity in Burundi, the Consolidated Approach for Reporting Indicators of Food Security (CARI)¹² console is mainly used. The questionnaire also included the Food Insecurity Experience Scale (FIES) Module¹³, and results are presented separately.

The CFSVA 2023 was conducted at a time when the COVID-19 pandemic subsided but made a serious impact on the households' economy due to restrictions or closure of businesses and job avenues for a longer period. It also coincided with the conflict in Ukraine, which has induced disruptions in imports, production and the related surge in food prices in the eastern African region including Burundi. Although direct imports from Russia and Ukraine are negligible, 95 percent of sunflower-seed oil re-exported to Burundi and Rwanda comes from Egypt, which directly imports 100 percent of its sunflower-seed oil from Russia and Ukraine. Hence, the Ukraine conflict impact the costs of sunflower oil in Egypt, which in turn is reflected in the domestic markets of Burundi and Rwanda¹⁴.

Keeping in view the above factors coupled with others, the CFSVA 2023 witnessed the prevalence of food insecurity at 41.2 percent at the country level (32.3% moderately and 8.9% severely).¹⁵ This means that 5,398,685 people are food insecure in the country. Among them, 1,169,081, people are severely food insecure, while 4,229,604 are moderately food insecure in the country¹⁶.

It is also important to note that a high percentage of the population (42.2%) in the country is at the borderline of food security and can fall down to the insecure category with any shock.

Figure-7 Food insecurity in Burundi, CFSVA 2023



The level of food insecurity varies by province and area. Rural area households have higher food insecurity at 44 percent compared to urban at 17.8 percent. The level of food insecurity among female-headed households is higher at 50 percent than male-headed houses at 39.1 percent.

Among provinces, the highest food insecurity was witnessed in Kirundo at 74.1 percent, followed by Muramvya at 65.2 percent, Ruyigi at 54.3 percent and Bururi at 51.1 percent. The lowest food insecurity was observed in Bujumbura Mairie at 13.1 percent, followed by Makamba at 17 percent, Rutana at 21.8 percent, Cankuzo at 27 percent and Bujumbura Rural at 27.2 percent.

¹² CARI, 3rd edition, 2021.

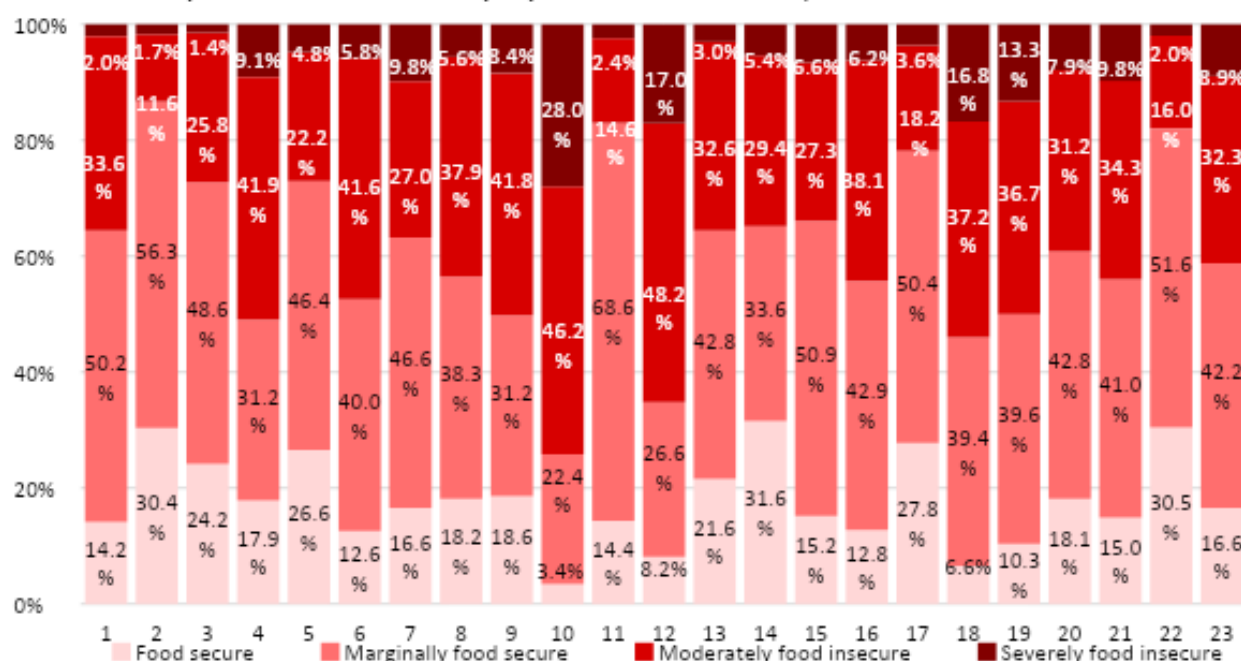
¹³ <https://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

¹⁴ WFP- Implications of Ukraine Conflict on Food Access and Availability in the Eastern Africa Region, Update #2, March 2022

¹⁵ The categories of "marginally", "moderately" and "severely" food insecure reported here are defined according to the CARI methodology. It is important to note that these are different from the categories "moderate" and "severe" food insecurity based on the FIES that are used for the purpose of monitoring the SDG indicator 2.1.2.

¹⁶ According to the 2023 projected population 13,097,396 people are living in Burundi-INSBU.

Graph-8 Food insecurity by Livelihood Zones, CFSVA 2023



In terms of population, the highest number of food insecure is 758,118 in Kirundo, followed by 477,927 in Kayanza, 434,026 in Gitega and 366,138 in Muyinga.

Makamba is the 2nd best province after Bujumbura in terms of food security. Makamba has 2 ecological zones, one mountainous and 2nd plane. The plan has vast cultivated land raising cereals. The average farmland in the plan is over 0.5 hectare. The local traders sell maize and other products cross border to Tanzania. The trade with Tanzania was not disturbed in the past and the province remained comparatively stable.

Major reasons for the increase in food insecurity are the price hike of essential commodities, devaluation of the Burundi Frank (BIF), high inflation, drought in certain areas and irregular or delayed rains. Inflation accelerated to 26% in July 2023 driven by increases in food and fuel prices. The price of basic foodstuffs increased, bringing food inflation to 35.8% in July 2023 compared to 24.5% in July 2022¹⁷. Fuel shortages worsened in June 2023 due to supply disruptions caused by the war in Ukraine. As a result, the food security of the majority of households was badly affected across the country. Please note that the market prices of essential food items rapidly increased during the last few years. For instance, since 2017 the prices of beans increased by 160.5 percent, rice (short grains) by 85.1 percent, corn by 60.1 percent and vegetable oil (since 2018) by 91.5 percent by April 2023¹⁸. In addition, the depreciation of BIF coupled with continuous subsistence and uncertain farming moved many people down from the borderline to the food insecure group. According to the World Bank, monetary poverty was estimated at 71 percent (based on the international poverty line of \$2.15/day) in 2022, up from 65 percent in 2013.

The majority of the provinces have a great segment of the population at the borderline of food security and are vulnerable to any shock like price hikes, health disasters, windstorms, floods and droughts etc. It was noticed that provinces comparatively with more urban population have a higher percentage of households at the borderline, while rural provinces have a bit higher population in this bracket.

As mentioned above, the CFSVA 2023 also included the Food Insecurity Experience Scale (FIES) survey module. The FIES is an experience-based metric of food insecurity severity that relies on people's direct

¹⁷ World Bank overview, May 2023

¹⁸ MVAM, WFP

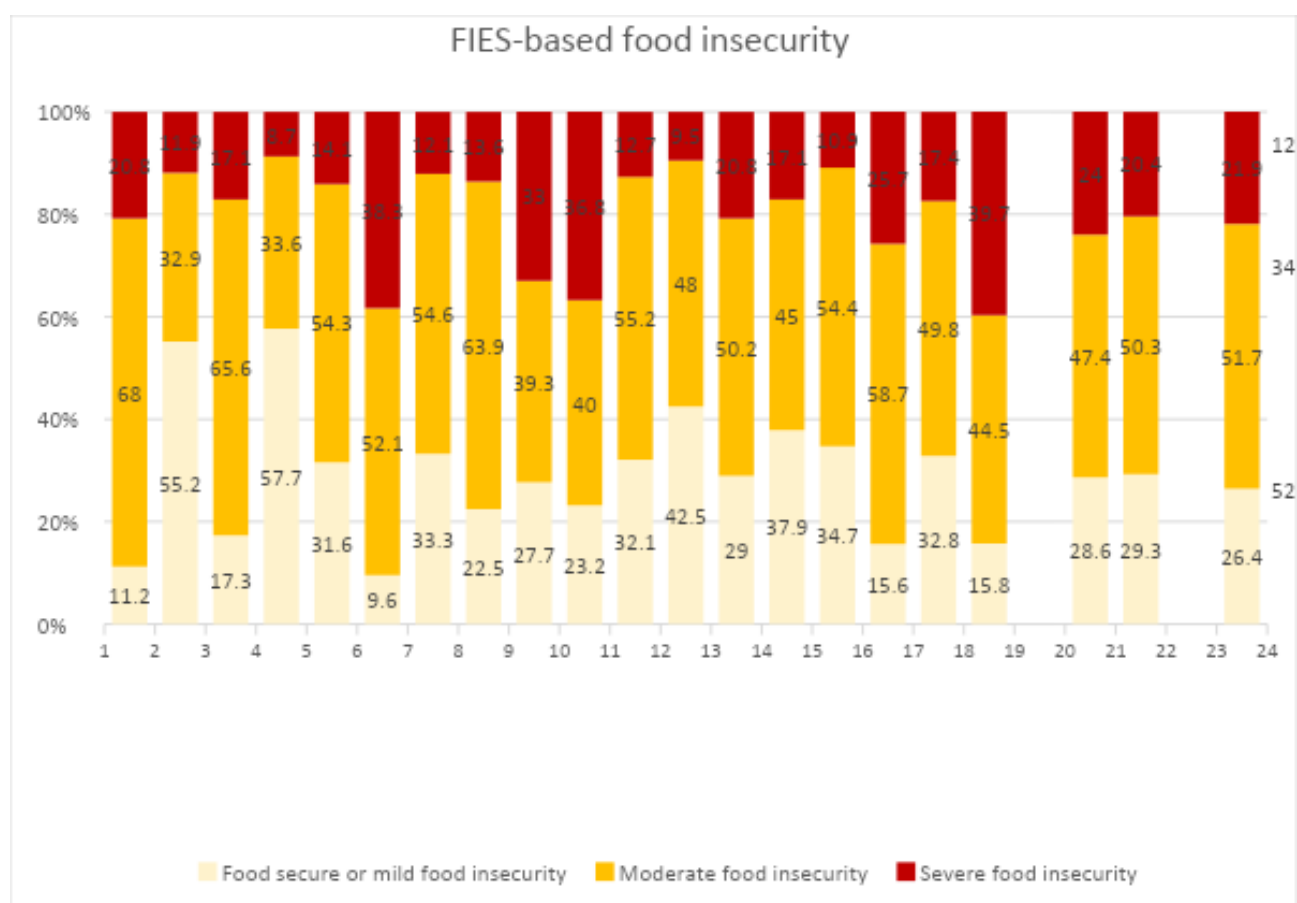
responses to questions about their access to food, and it is the official instrument used by FAO to produce estimates of the prevalence of food insecurity in the context of SDG Target 2.1 monitoring. The standard FIES survey module contains eight questions focused on food-related behaviours and experiences, associated with difficulties in accessing food due to resource constraints. The FIES can be easily applied within any properly designed individual or household survey to produce timely, reliable and meaningful information on the adequacy of access to food at the individual or household level, provided the correct analytic protocol is used to process the information. This is based on Rasch modelling, which makes it possible to transform the qualitative information collected (as simple “yes/no” answers) into rigorous quantitative measures, which make it possible to classify respondents into different classes of food-insecurity severity.

For the survey conducted, the FIES module was adapted to serve multiple purposes, while preserving all the desirable properties in terms of food security measurement rigor and reliability. Each FIES question was asked with reference to the previous 12 months to calculate annual food insecurity prevalence rate, which is used as the official indicator number 2.1.2 for SDG monitoring.¹⁹ Questions answered affirmatively were followed up by asking whether the experience occurred over the past 4 weeks, so that the prevalence of recent food insecurity could be determined as well, and the last three questions in the FIES module were expanded to also collect information on the frequency of occurrence, a feature that makes it possible to better assess and potentially discriminate further within the severe food insecurity classification. This has the important advantage of being better suited to inform assessments of *acute* food insecurity in the context of the Cadre Harmonisé (CH) and the Integrated Food Security Phase Classification (IPC). Estimates are reported in the table and in the chart below.

	FIES-based Food Insecurity				
	in past 12 months		in the past 30 days		
	FI _{mod+sev} % (±MoE)	FI _{sev} % (±MoE)	FI _{mod+sev} % (±MoE)	FI _{sev} % (±MoE)	FI _{IPC3+} % (±MoE)
National	70.8 (±1.9)	20.9 (±1.4)	53.3 (± 2.1)	7.9 (±1.0)	33.2 (±1.9)
Province					
Bubanza	88.8 (±4.1)	20.8 (±4.9)	77.6 (± 5.3)	10.9 (±4.2)	44.7 (±6.6)
Bujumbura mairie	44.8 (±5.5)	11.9 (±3.1)	35.9 (± 5.4)	7.7 (±3.0)	22.3 (±4.5)
Bujumbura rural	82.7 (±5.4)	17.1 (±4.7)	67.1 (± 6.8)	5.2 (±2.8)	35.5 (±6.2)
Bururi	42.3 (±7.4)	8.7 (±4.0)	25.7 (± 6.8)	5.5 (±3.3)	16.4 (±5.7)
Cankuzo	68.4 (±7.2)	14.1 (±4.6)	37.3 (± 7.5)	7.1 (±3.8)	22.8 (±6.1)
Cibitoke	90.4 (±4.0)	38.3 (±6.0)	81.5 (± 5.8)	9.5 (±3.6)	54.6 (±6.6)
Gitega	66.7 (±7.0)	12.1 (±4.0)	35.6 (± 7.3)	1.9 (±1.5)	17.4 (±5.3)
Karusi	77.5 (±6.3)	13.6 (±3.4)	61.5 (± 7.2)	3.7 (±2.2)	38.2 (±6.5)
Kayanza	72.3 (±7.3)	33.0 (±6.3)	64.2 (± 7.8)	13.7 (±4.6)	46.3 (±7.5)
Kirundo	76.8 (±7.2)	36.8 (±6.1)	62.1 (± 7.4)	11.2 (±4.2)	43.3 (±7.1)
Makamba	67.9 (±7.1)	12.7 (±3.9)	46.0 (± 7.5)	2.2 (±1.5)	23.1 (±6.0)
Muramvya	57.5 (±6.9)	9.5 (±4.0)	32.4 (± 6.7)	5.0 (±2.9)	16.6 (±5.4)
Muyinga	71 (±6.6)	20.8 (±5.0)	58.9 (± 7.4)	13.5 (±4.8)	40.7 (±7.3)
Mwaro	62.1 (±7.4)	17.1 (±5.0)	47.1 (± 7.7)	7.9 (±3.6)	28.7 (±6.8)
Ngozi	65.3 (±7.1)	10.9 (±4.1)	41.8 (± 7.3)	4.6 (±2.8)	21.0 (±5.6)
Rumonge	84.4 (±5.0)	25.7 (±6.0)	72.0 (± 6.8)	9.2 (±3.6)	48.0 (±7.1)
Rutana	67.2 (±6.8)	17.4 (±4.8)	44.3 (± 7.3)	3.4 (±2.3)	22.9 (±5.9)
Ruyigi	84.2 (±5.2)	39.7 (±6.2)	65.8 (± 7.2)	16.0 (±5.0)	48.0 (±7.2)
Sex HH head					
Female	71.4 (±4.5)	24 (±3.5)	53.9 (± 2.7)	7.6 (±1.3)	33.2 (±2.4)

¹⁹ <https://unstats.un.org/sdgs/indicators/indicators-list/>

Male	70.7 (±2.1)	20.4 (±1.5)	52.4 (± 3.3)	8.3 (±1.6)	33.2 (±3.0)
Area					
Rural	73.6 (±2.0)	21.9 (±1.5)	55.6 (± 2.3)	8.1 (±1.1)	34.6 (±2.0)
Urban	47.5 (±5.4)	12.6 (±3.3)	34.6 (± 5.0)	6.3 (±2.2)	21.2 (±4.1)

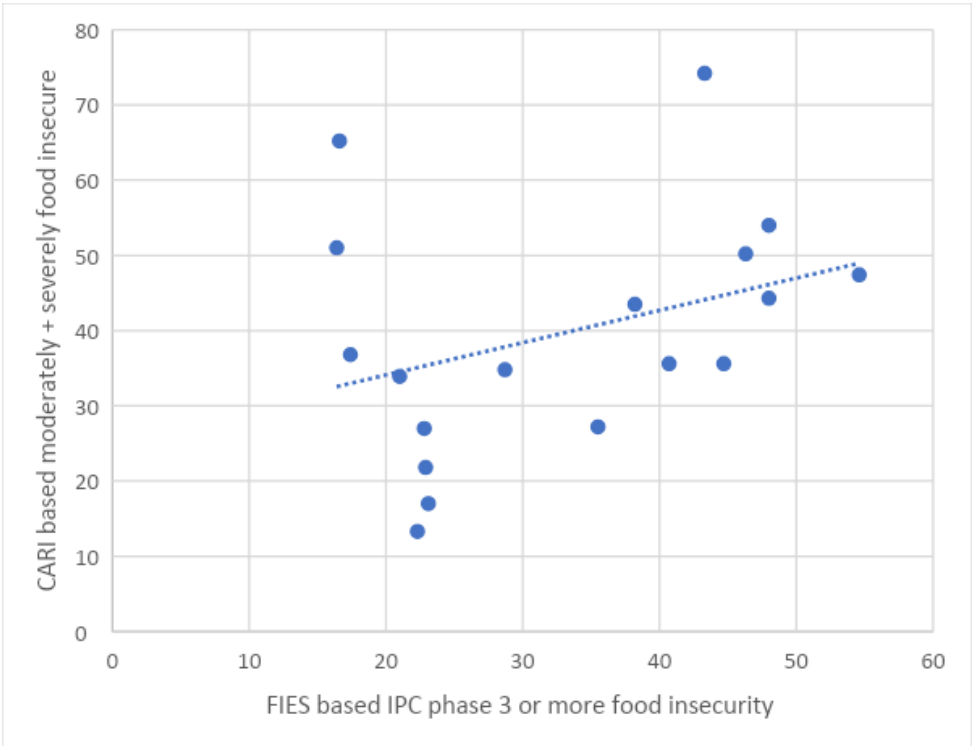


As mentioned before, the categories of “moderate” and “severe” food insecurity defined with reference to the FIES, differ from the ones defined in the CARI methodology, and the readers are warned not to make a direct comparison. In fact, people experiencing **moderate** food insecurity according to the FIES face uncertainties about their ability to obtain food, and have been forced to compromise on the quality and/or quantity of the food they consume, but are not necessarily in need of immediate intervention to protect lives and livelihood. This is instead a very likely condition for people experiencing severe food insecurity (FI_{sev}), who have typically run out of food and, at worst, gone a day (or days) without eating.

The figures presented in the table show that over two-thirds of the population experienced moderate to severe FIES-based food insecurity in the past year, with almost one fifth of them experiencing severe food insecurity. Estimates referring to the past 30 days are quite lower especially at severe level, suggesting that that while some households may experience temporary food insecurity, a significant proportion of the population experiences chronic food insecurity. The data also reveals significant regional disparities in food insecurity, with the highest levels found in Bubanza and Cibitoke provinces. Data reveals that there are no statistically significant differences in the prevalence of food insecurity between male and female-headed households, while there are significant differences between rural and urban areas, with rural areas experiencing higher levels of food insecurity than urban areas.

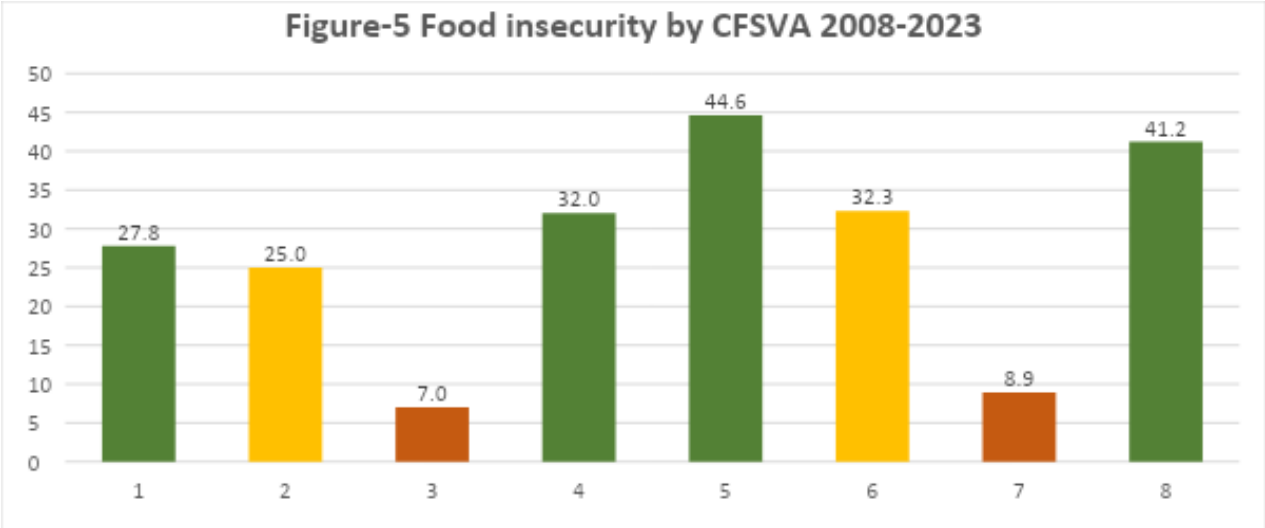
To make a proper comparison with the results based on the CARI console, results are also reported for people classified to be in IPC Phase 3 or more (FI_{IPC3+}) as per the Integrated Phase Classification Technical

Manual version 3.1²⁰ and that can be compared with the sum of the “moderately food insecure” and “severely food insecure” computed using the CARI and reported in Figure 7 and Graph 8 above. Comparison of the CARI based results with the FIES based results by province show high consistency, with only few exceptions, as reported in the chart below.



2. Food security transition

Food insecurity has worsened over time in the country. In 2008 the food insecurity was 27.8 percent which increased to 32 percent in 2014 and 41.2 percent in 2023 at the national level. On the other hand, the percentage of the food-secure population shrank from 68 percent in 2014 to 58.8 percent in 2023.



However, according to a joint WFP-UNICEF nutrition and food security assessment carried out in 2018, the food insecure population was estimated at 44.6 percent.

²⁰ <https://www.ipcinfo.org/ipcinfo-website/resources/ipc-manual/en/>) and IPC Resource 5 "Indicators Utilized by IPC" (<https://www.ipcinfo.org/ipcinfo-website/resources/resources-details/en/c/1154952/>).

An indication of the worsening situation can be observed from the proportion of households in the severe food insecurity level increasing from 7 percent in 2014 to 7.8 percent in 2023, where an increase from 682,000 severely food insecure populations in 2014 to 1,159,622 severely food insecure population in 2023. Similarly, food insecurity increased from 32 percent in 2014 to 41.2 percent in 2023. It means that the food-insecure population increased from nearly 3,000,000 in 2014 to 5,396,556 in 2023, which almost doubled.

Nevertheless, the CFSVA 2014 was conducted during the pre-lean season, while CFSVA 2023 was at the peak of the lean season, when farmers were preparing land for sowing maize and beans. Hence, besides other factors, seasonality may also have impacted the food security of people in 2023. In addition, climate change, i.e., delay in rainfall, inadequate rainfall and non-availability of drought resistant varieties, has reduced crop production which increased food insecurity in the country.

Sebatian a carrier transporting wooden Pannels on a bike from a village to Gitega city. He travels for 30 km with a load of around 100-120 kg every day. He can make only one trip a day and earn 8000-10000 BIF per day.

He is 30 years old and has a family of 4 with 2 children. With such heavy physical work, he tried to raise his 2 children with the dream of giving them education. He also pays some money for the maintenance of the bike and pays the children who push his bike while walking up the slopes. Hence, his net income is around 6000 BIF per day.

He has been working for the last 5 years trying to feed his family. According to him, the work is very hard and only young people with good health can push the bike with such a huge load.

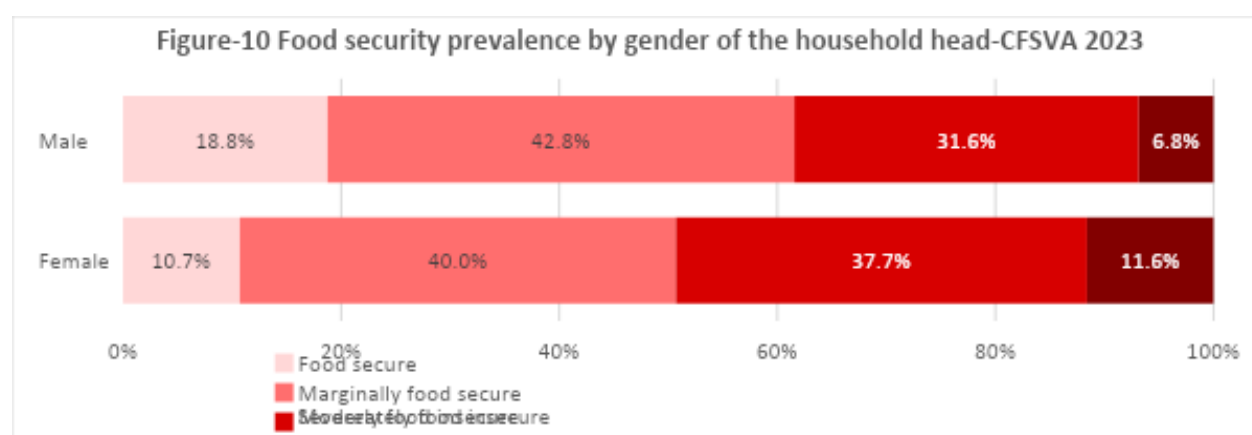
This is high-risk work, and after sometimes the carrier becomes unable to do the hard physical work due to health issues. These people need support in reducing their burden by providing motorised bikes at subsidized rates.

3. Vulnerability and food insecurity

(Who, where and why)

3.1. Food security prevalence by gender of the household head

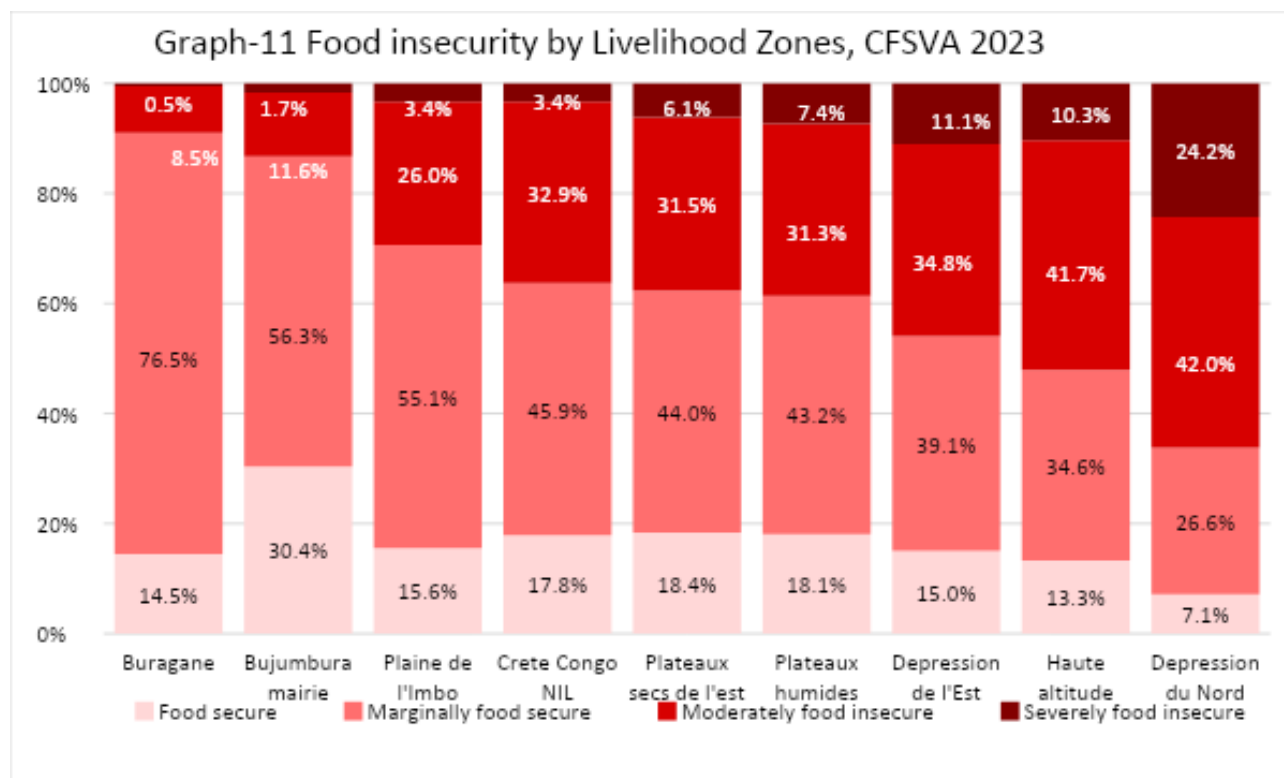
The percentage of food-insecure is higher in female-headed households (49.3 percent) than male-headed (38.4 percent). The severely food insecure percentage is significantly (at 95 percent confidence interval)



higher in female-headed compared to male-headed households. The male-headed households are more at the borderline.

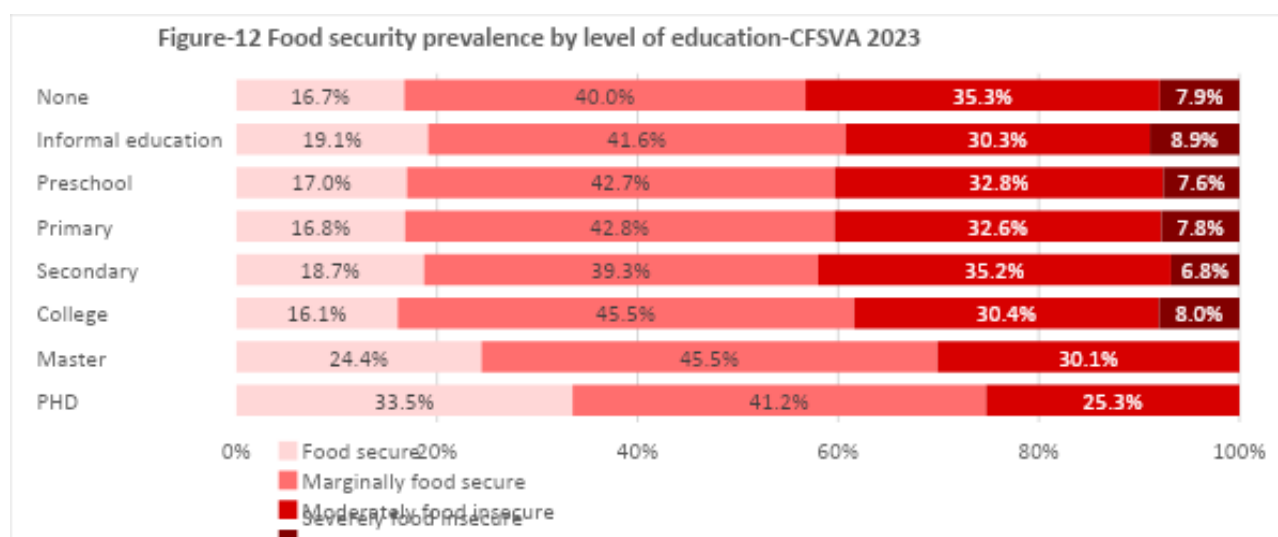
3.2. Food security by livelihood zones

According to the CFSVA 2023, among the 9 livelihood zones in Burundi, Buragane is the least food insecure zone at 9 percent food insecure households, followed by Bujumbura Mairie at 13.3 percent, while Depression du Nord has the highest percentage of food insecure households at 66.2 percent, followed by Haute altitude at 52.1 percent. The percentage of households at borderline is higher in Buragane at 76.5 percent, followed by Bujumbura Mairie at 56.3 percent and Plaine de l'mbo at 55.1 percent.



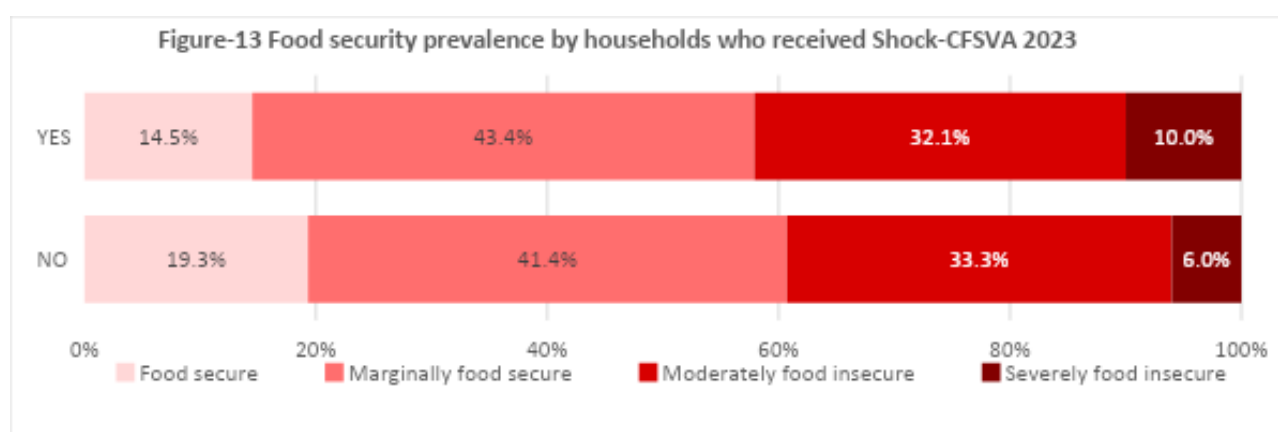
3.3. Food security prevalence by the level of education of the household head

Education plays a significant role in the food security of households, especially when the head of the household is educated. The CFSVA 2023 shows that the percentage of food insecure population is much higher among the illiterate households' heads compared to educated ones. When the education level of the household's head got increased food insecurity declined. Educated heads of households have better opportunities for working with higher returns. Moreover, they can run the businesses with better planning and have the capacity to manage, record and execute things. Among the households with illiterate heads, 43.2 percent are food insecure, among the primary level educated 40.4 percent, college level educated heads 38.4 percent, master level 30.1 percent and PhD level 25.3 percent.



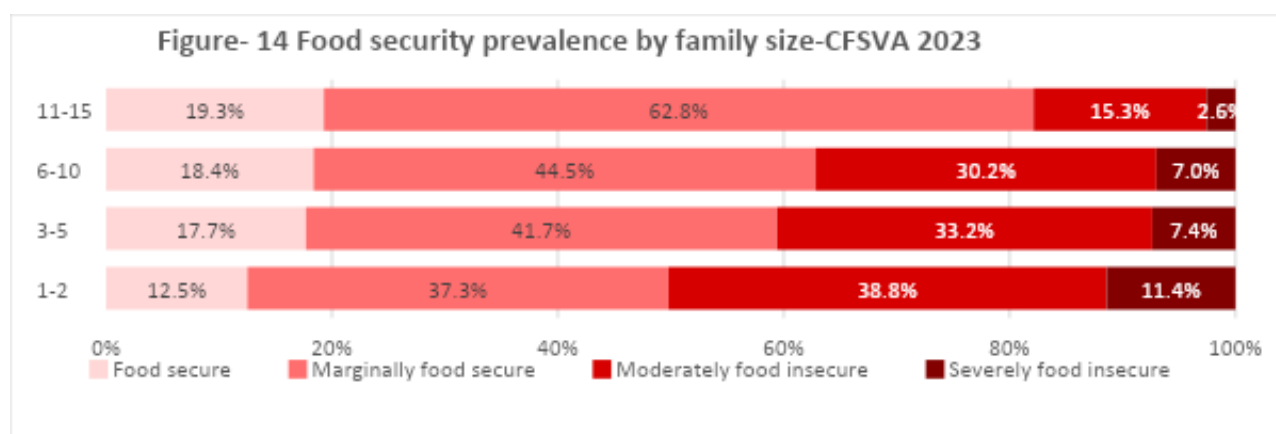
3.4. Food Security and Shocks

Shocks usually deteriorate the food security of the households to the degree the shock impacts them. In Burundi the households who reported any shock in the past 12 months, a higher percentage of them are food insecure. On average, 42.1 percent of households that are affected by shocks are food insecure compared to 39.3 percent of those who did not receive any shock. Diseases including COVID-19, hail storms, flooding, drought and price hikes were the major shocks reported.



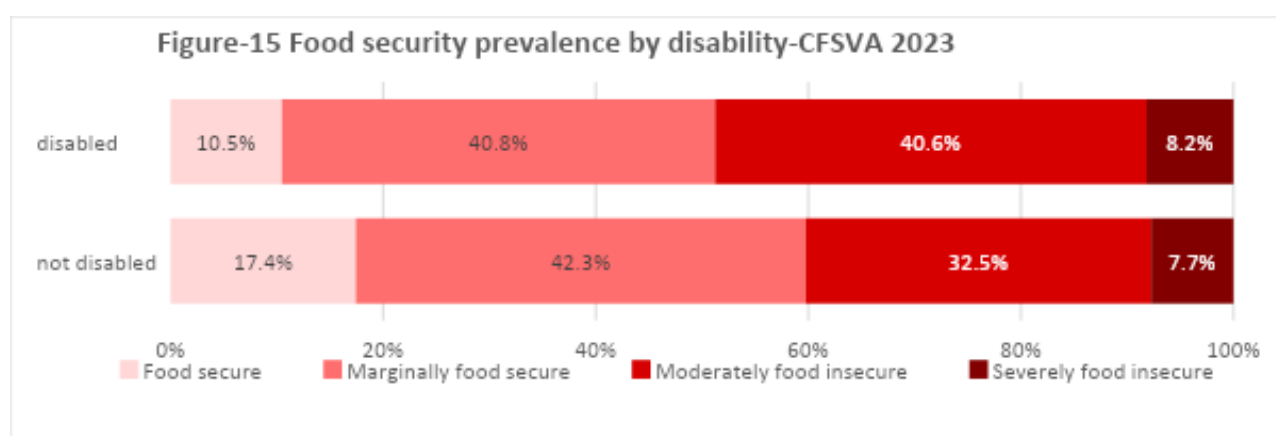
3.5. Food security and household size

In an agricultural economy where farming is mostly through hand tools (no mechanization), manpower is the major source of producing food. The more manpower the more is the capacity to produce food. CFSVA 2023 has proved that households with larger sizes are less food insecure compared to those with small sizes. The rate of food insecurity among the household size of 11-15 persons is 17.9 percent compared to a size of 1-2 persons at 50.2 percent. The figure below shows that when the household size increases food insecurity starts reducing.



3.6. Food security and households' heads disability

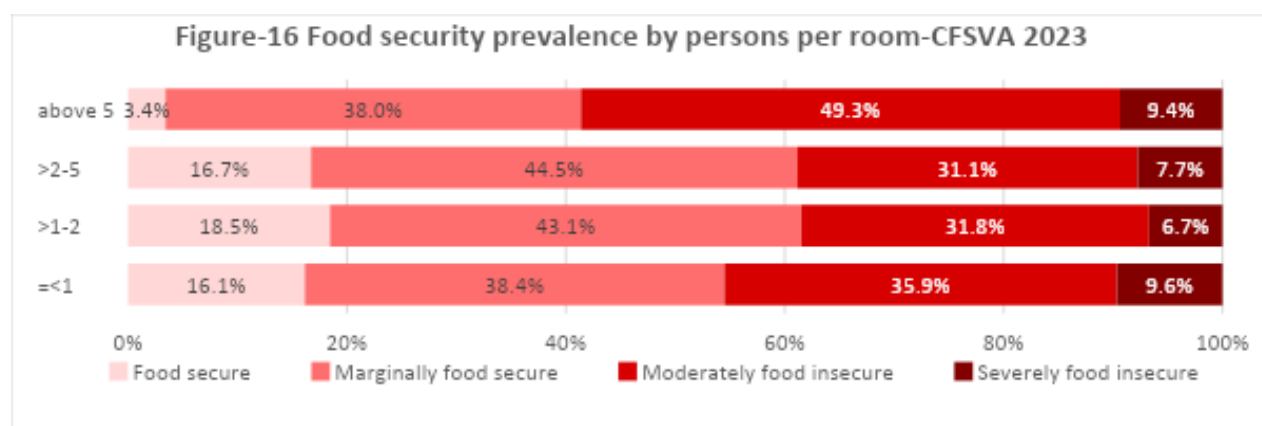
Disability is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the people around them (participation restrictions). Hence, it deprives the person(s) of performing with full capacity in earning a livelihood. Therefore, it impacts the food security of the respective households.



The percentage of food-insecure was found higher at 48.8 percent among the households whose head has any kind of disability compared to 40.2 percent of those with no disability.

3.7. Food security by persons per room- congestion

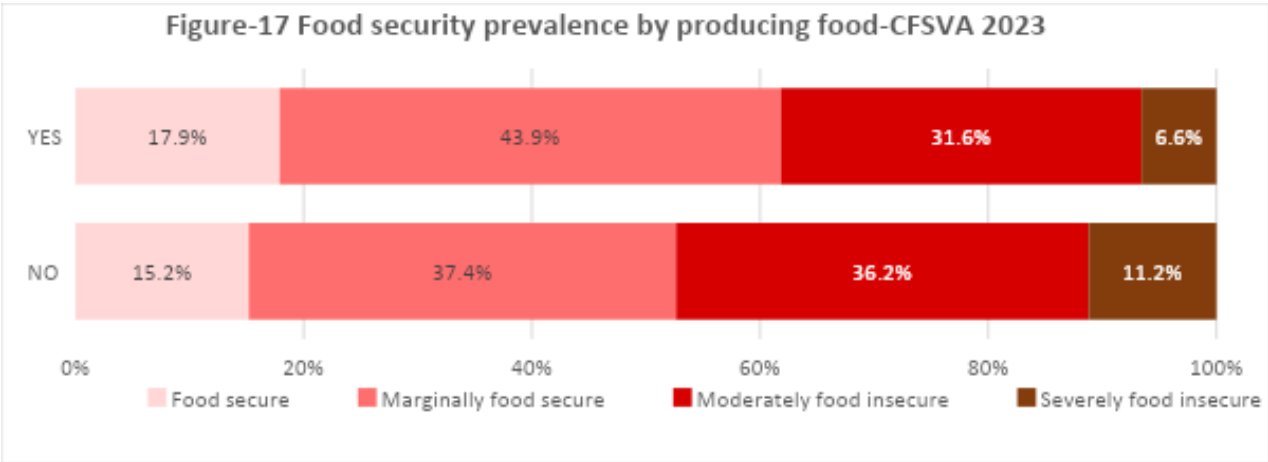
Normally, the rich people have many rooms in their home and each person has at least one room to sleep in, while the poor people have limited rooms with many people, thus, many people sleep in a single room. This hypothesis was proved right by the CFSVA 2023 as the households where more than 5 people sleeping in one room have the highest percentage of food insecure at 58.7 percent, followed by those where >2-5 persons living in one room at 38.8 percent and >1-2 persons in one room at 38.5 percent. However, the households with 1 room or less per person showed higher food insecurity at 45.5 percent. This may apply that many households are single-member families with poor and inadequate livelihoods. The CFSVA 2023



shows that 11 percent of the households, among the 1 person per room, have only one-room house or shelter.

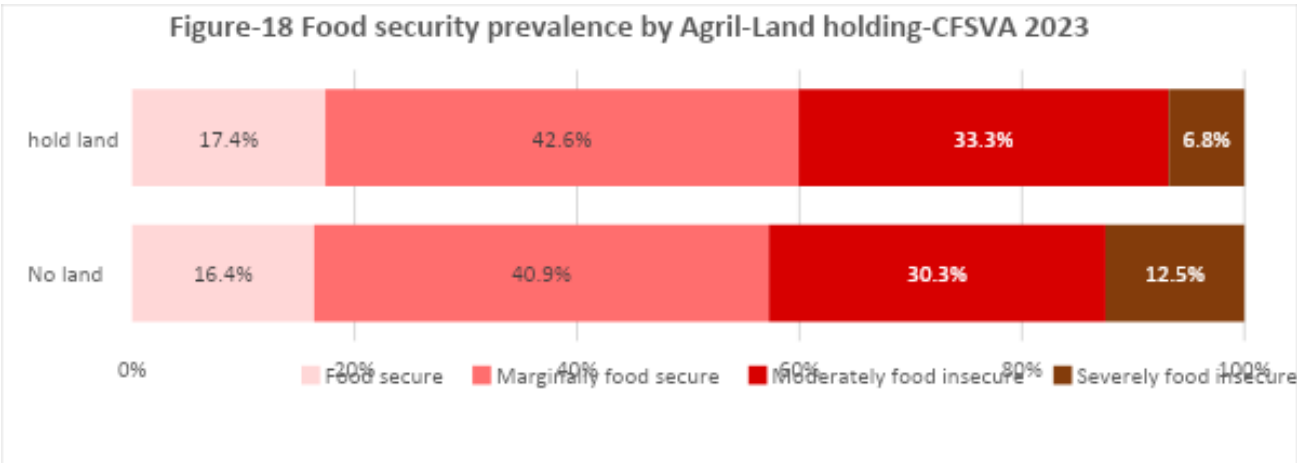
3.8. Food security of food-producing households

Per CFSVA 2023, the percentage of food insecure households is higher among the households not producing food (47.4 percent) compared to those producing food (38.2 percent). Households producing food are able to keep food for their own consumption for quite some time and not totally rely on market purchases. Although, the majority of the food-producing households are subsistence farmers with uncertain and low levels of production, the non-food-producing farmers are more at risk due to price hikes and low capacity.



On the other hand, farmers heavily depend on the mercy of rains for crop production. These farmers also have to buy other food items like meat, milk, oil, sugar, spices and non-food items from the sale of food they produce.

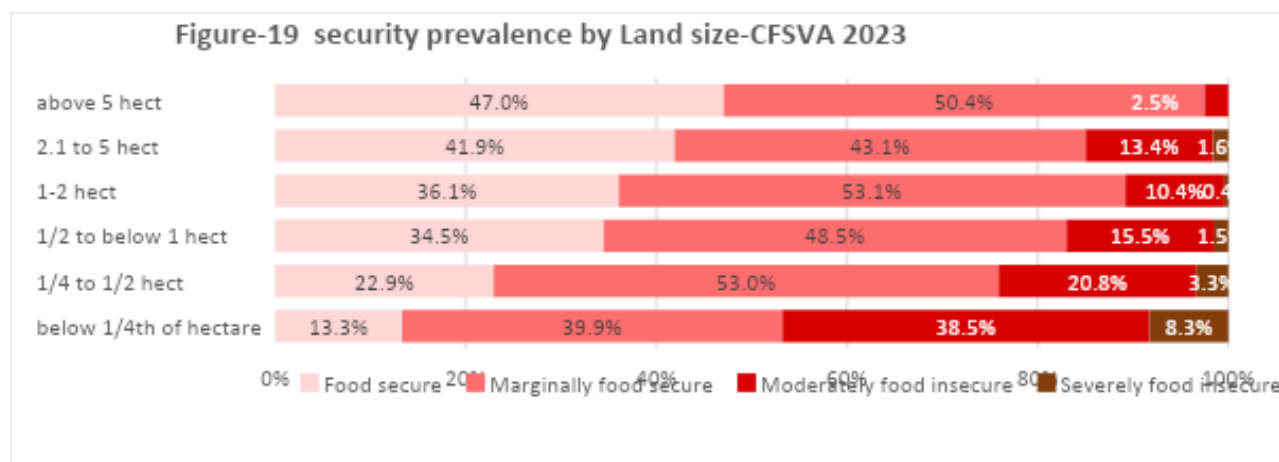
According to CFSVA 2023, households having no land are more food insecure at 42.8 percent compared to those keeping land for cultivation at 40.1 percent. However, the difference is not so significant. The majority of the landless households, especially in rural areas, are casual and agricultural labourers with poor access to food and non-food essentials. The labour work in rural areas is mostly physical and demands fitness.



In Burundi, the percentage of fertile land available for agriculture is decreasing due to the country’s high population growth rate. The long period of conflict had an adverse impact on the agriculture sector, including the livestock sector. Agricultural production covers an average area of 0.50 ha per household, but only translates into 65 per cent of the food requirements, resulting in the country’s dependence on food imports. Moreover, cereals and legumes account for less than 50 per cent of the Burundian population's diet, which consumes a high quantity of tubers²¹.

²¹ IFAD Document, Burundi

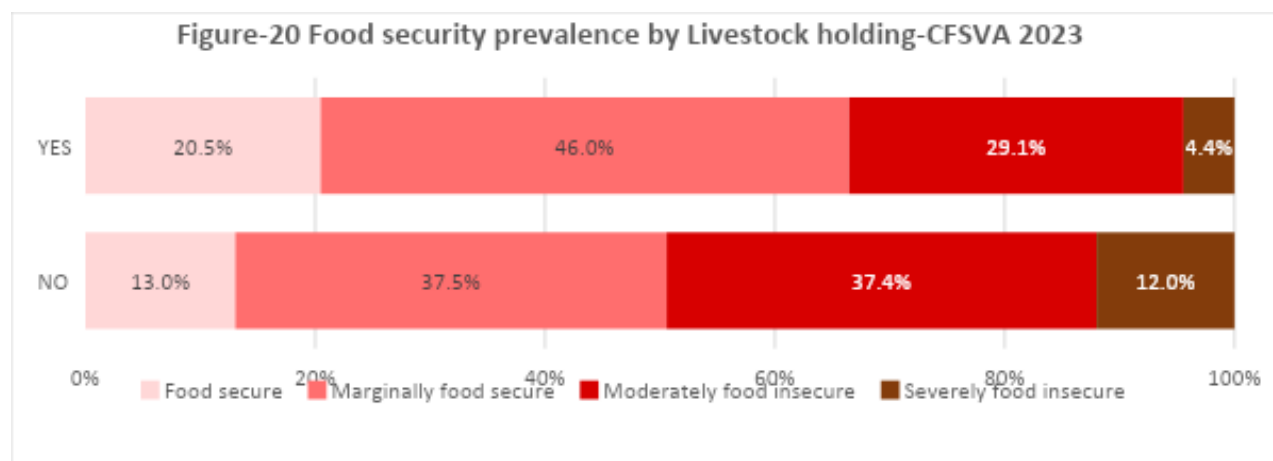
Being small farmers with an average of 0.5 hectares of land, many survive on less quantity of food or buy things on credit from the shopkeepers and return after harvest and labour work. However, due to poor harvests, especially holding of small pieces of land, are normally unable to return the loan or to keep sufficient food for their own consumption till the next harvest. They are continuously in the trap of a vicious circle of food insecurity which expands every year.



The CFSVA 2023 looked into the level of food insecurity of farmers with respect to their land size and found that those with smaller land size are more food insecure compared to those with larger land size. It was observed that with an increase in land size food insecurity declined. The percentage of food insecure households is much higher at 46.8 percent among the farmers with land size below 0.25 hectare, followed by farmers with 0.25 to 0.5 hectares land size at 24.1 percent, 0.5 to 1 hectare at 17 percent, 1-2 hectares at 10.8 percent and above 5 hectares land size at 2.5 percent.

3.9. Food security of households rearing livestock

The households rearing livestock were found less food insecure (33.5 percent) compared to those with no livestock (49.4 percent). Thus, livestock has contributed to improving the food security of the households. However, it is important to mention that livestock rearing is not commercial, or profit-based in Burundi and



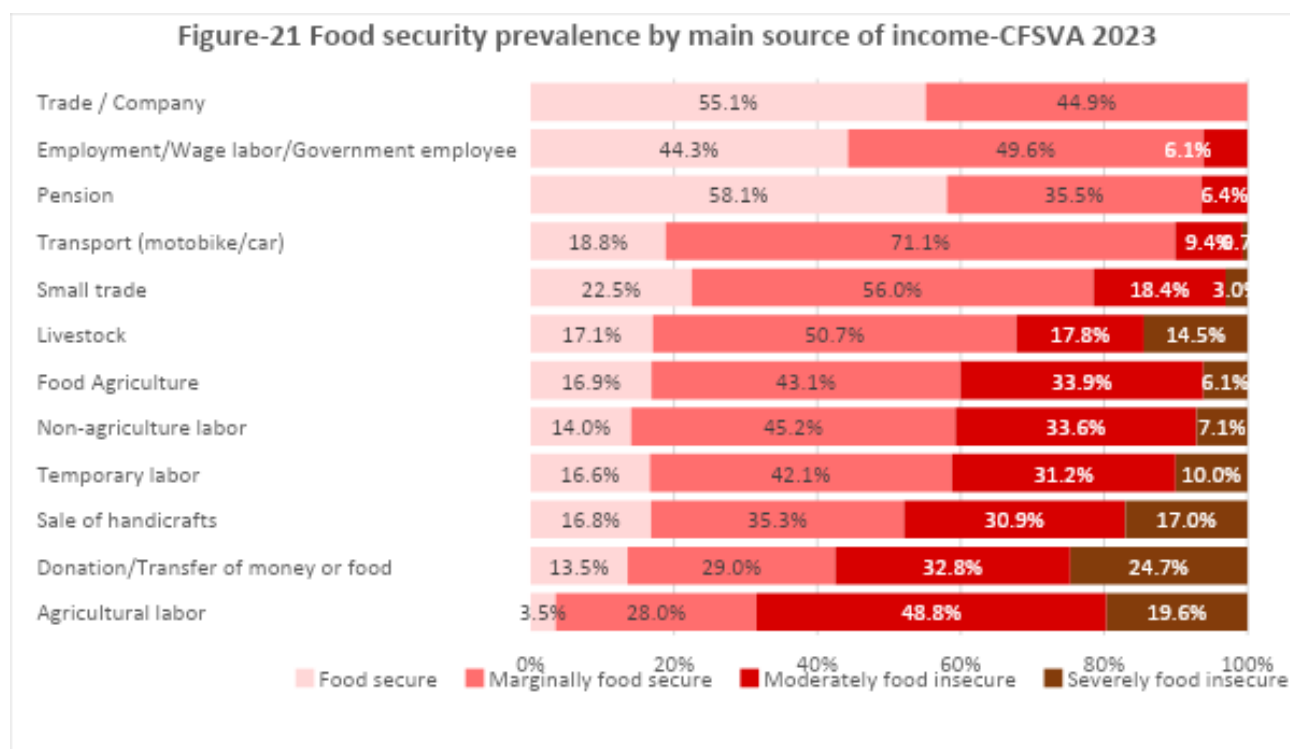
limited numbers are kept. Goats are the major type of livelihood and the average holding of goats is 1.5 per household, sheep 0.2 and cattle 0.6. Such holding of livestock cannot generate adequate income for the households to feed themselves. However, livestock keeping is part of farming or rural setup, mostly used as part of a coping strategy during economic stress, in addition to the incremental support from time to time.

3.10. Food security prevalence by livelihood type

The predominant livelihood is agriculture and associated services and value chain. However, despite a major source for many Burundians, the smaller land size and inadequate inputs, the majority of them are poor and highly vulnerable to any disaster. Therefore, the highest percentage of food insecure households was found

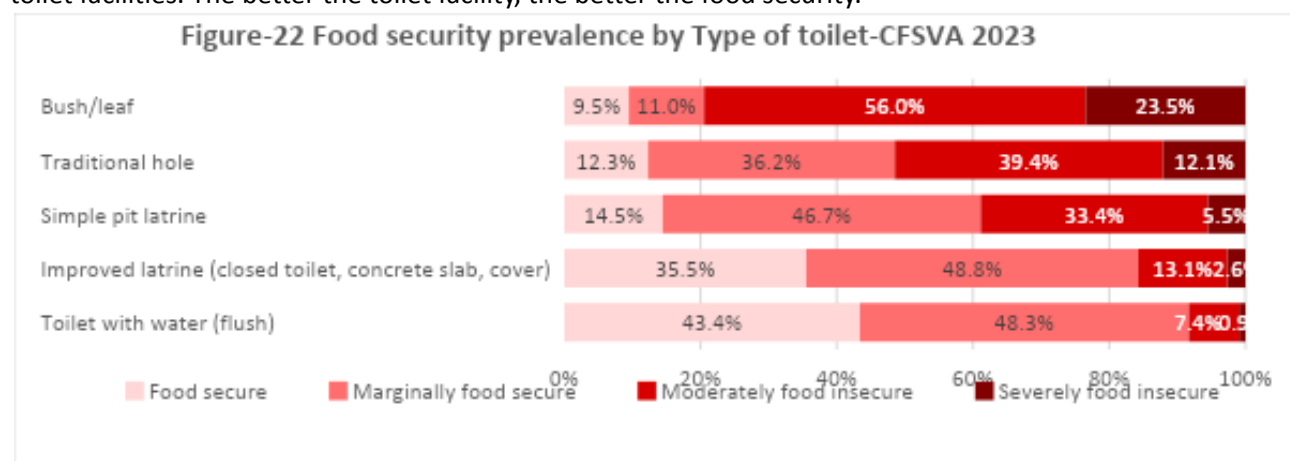
in the agriculture labour group at 68.4 percent, while agriculture producers were in the 6th position at 40 percent food insecure. The 2nd group with higher food insecurity was the households that survived on donations, aid and food transfer at 57.5 percent. The 3rd group with higher food insecurity was the sale of handicrafts, 4th and 5th groups were the temporary and non-agriculture labourers.

The better food-secure livelihoods are the households with trade/company, regular employment, pension and transport. Households surviving on small and petty trade were comparatively better but had the highest percentage of households at the borderline, with the risk of falling down to the food insecure group in case of any shock.



3.11. Food security prevalence by toilet facility

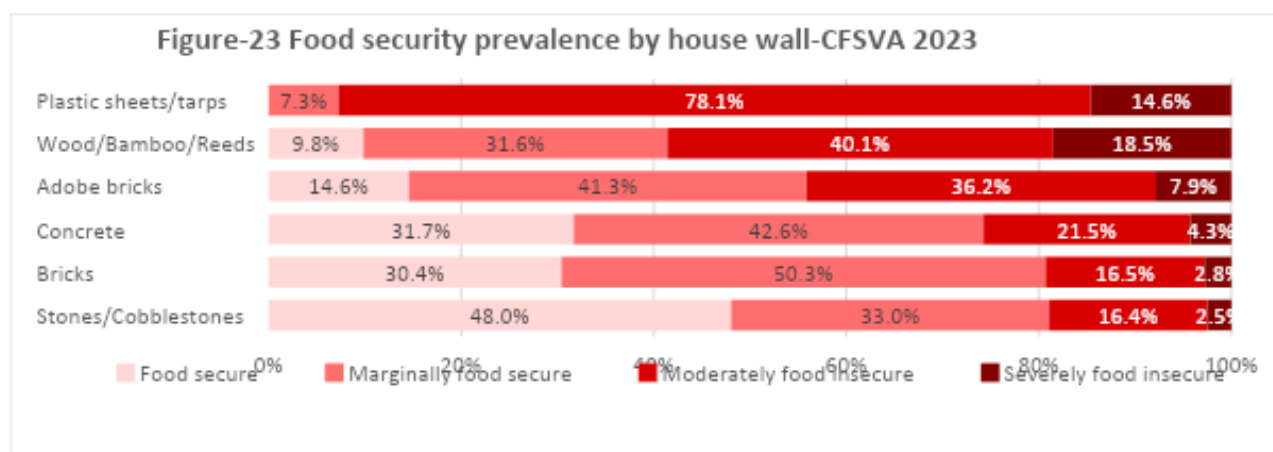
Although toilet facilities are part of sanitation and translate into the health condition of the households, they reflect the economic status of the households. Poor households cannot afford better toilet facilities and opt for open defecation or pit latrines. The CFSVA 2023 found that households with flush latrines have a lower percentage of food insecure people at 8.3 percent, while those who go for open defecation have the highest percentage of food insecure at 79.5 percent. Hence, food insecurity is directly linked to the type of toilet facilities. The better the toilet facility, the better the food security.



3.12. Food security prevalence by house structure-walls

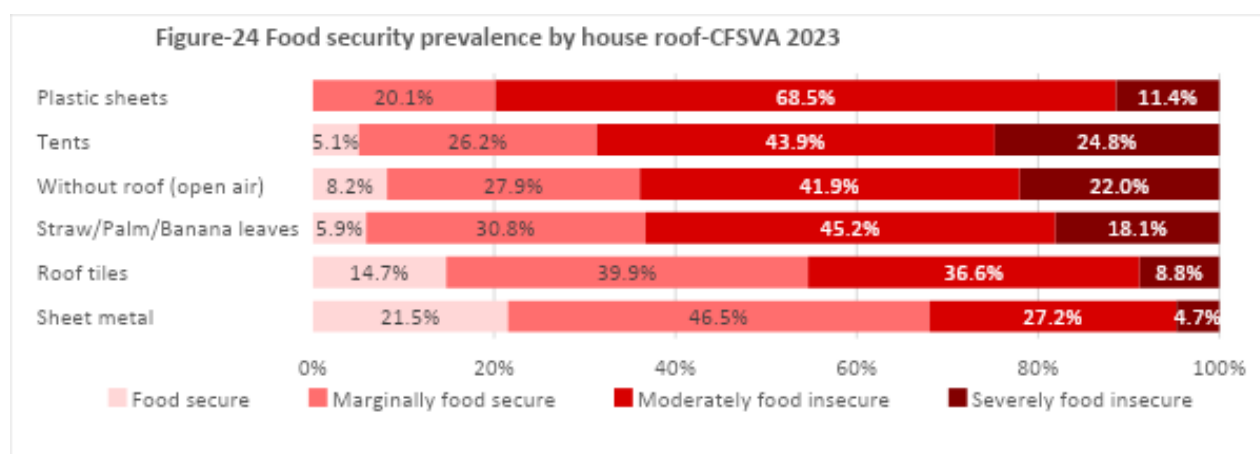
In the traditional setup like Burundi, the first choice of the people, when they have savings after meeting their essential domestic needs, is to build a decent house to stay in. Thus, house condition reflects the economic status of a household. The household with a better economic status lives in a better-constructed house, while the poor live in a temporary, bush or mud house. Thus, food insecurity is directly correlated to the house structure.

The CFSVA 2023 found that the percentage of food-insecure households is much higher among those living in houses with plastic sheet or tarpaulin walls around the houses at 92.7 percent, followed by those living in wood/bamboo/reeds wall houses at 58.6 percent, rudimentary wall structure houses at 44.1 percent. Those living in stone/cobblestone wall houses have the lowest percentage of food-insecure households at 18.9 percent.



3.13. Food security prevalence by house structure-roof

As mentioned earlier about the correlation between the house structure and food security, the roof of the house is also an important part of the house structure. The CFSVA 2023 shows that those living in houses with plastic sheets roofing

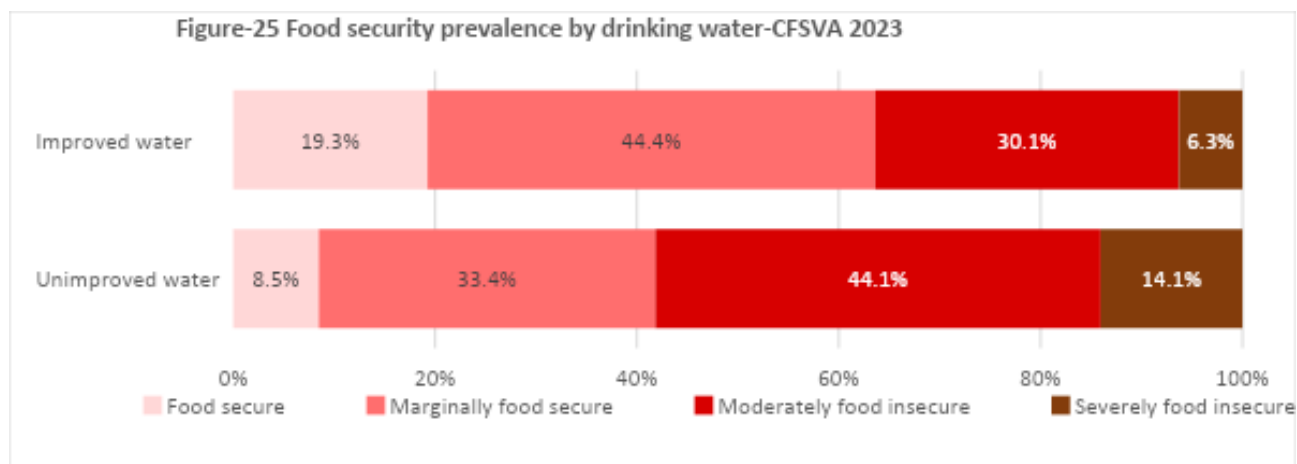


have the highest percentage of food-insecure people among others at 79.9 percent, followed by those living in tents at 68.7 percent, without roof at 63.9 percent and straw/leaves roofing houses at 63.3 percent. People with sheet metal roofing houses are the least food insecure at 31.9 percent. Thus, both walls and roofing are the symbol of better house structure and better economic status, which translates into better food security.

3.14. Food security prevalence by type of potable water

Food utilization is the 3rd pillar of food security and potable water is part of the food utilization. The food can be digested properly by using clean and hygienic water for drinking. According to the CFSVA 2023 results, the households using unimproved water for drinking have a higher percentage of food insecure at

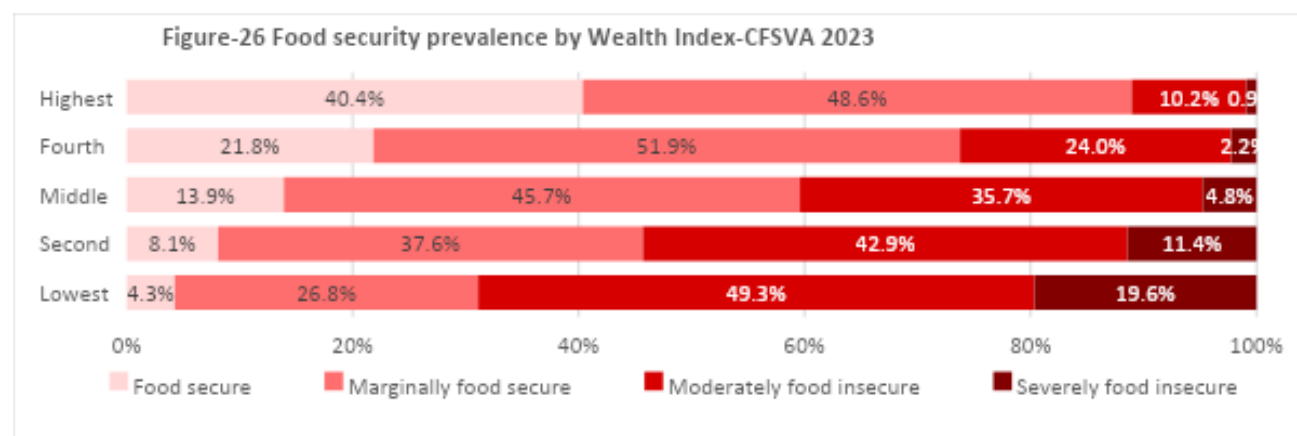
58.2 percent than those using improved water at 36.4 percent. This indicator also supports the nutrition



security in urban areas where a great majority of the households have access to improved water compared to rural areas.

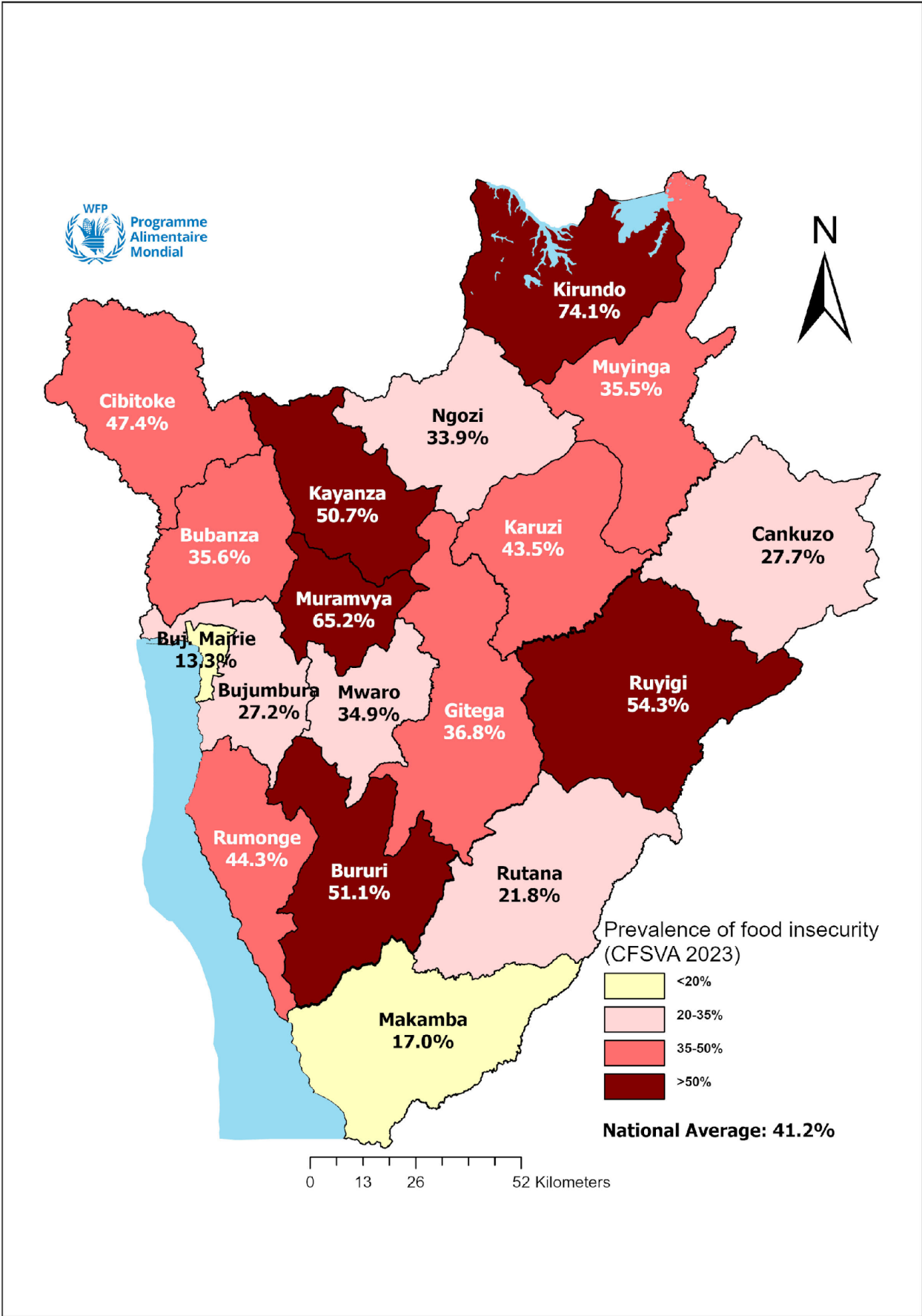
3.15. Food security prevalence and wealth index

Poverty and food insecurity although not the same, have a close link. The wealth index is based on the possession of assets both productive as well as non-productive by a household and thus determines the level of economic status. The wealth index, which is an assets-based poverty indicator, has a direct positive correlation with the household's food security. The lowest (poorest) wealth group of households have the highest percentage of food insecure households at 68.9 percent, followed by the second (poor) group at 54.3 percent and middle (borderline) at 40.5 percent, while the rich group has only 11.1 percent.

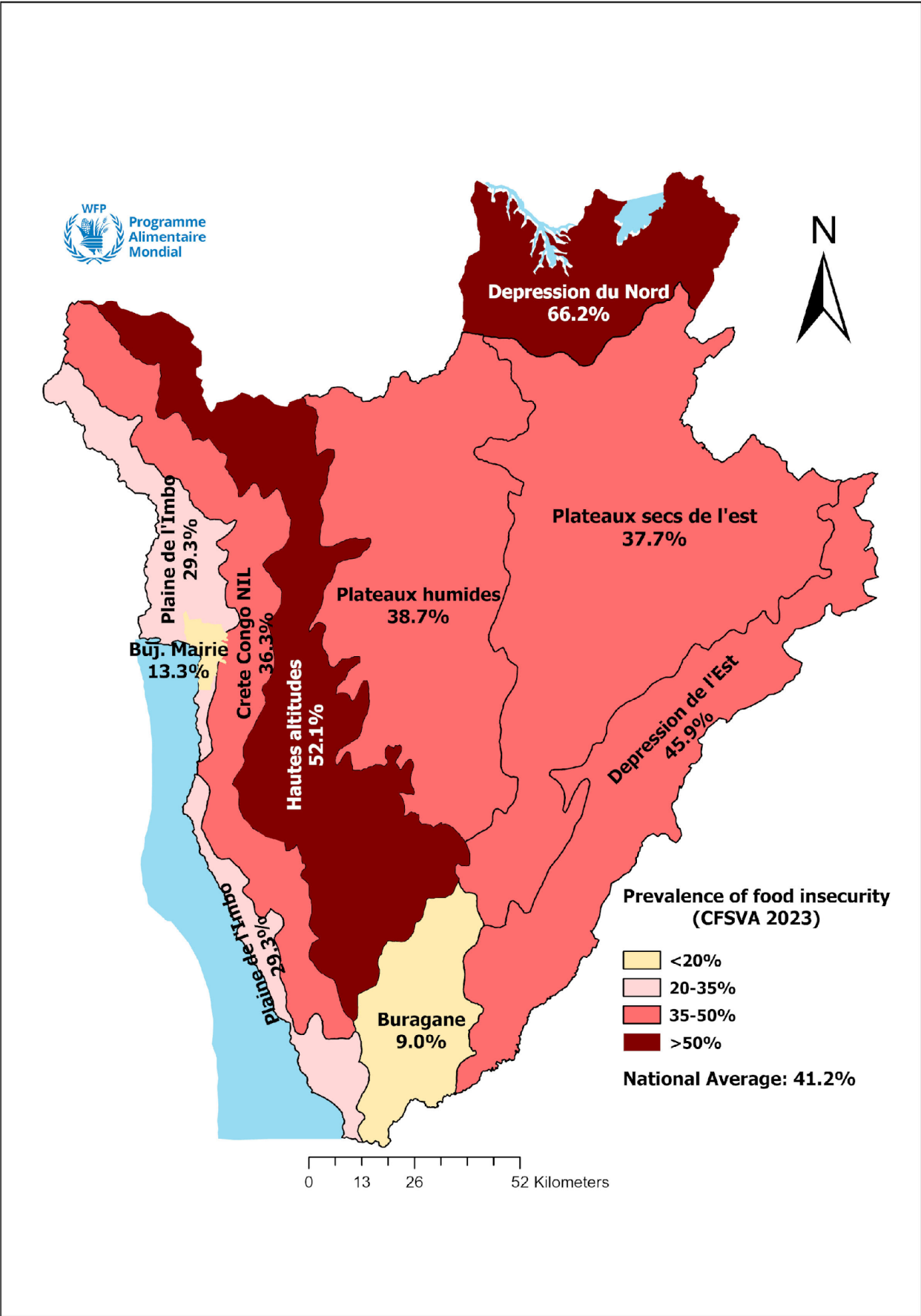


Poverty has a direct impact on food security as poor people mostly rely on cheaper foods, have no food diversification, have lower health, and hygiene and spend maximum resources on buying food in the market. Unfortunately, with frequent disasters more and more people drop down into poverty in countries predominantly agricultural with subsistence farming like Burundi. More serious and innovative programmes are required to uplift these people with better farming.



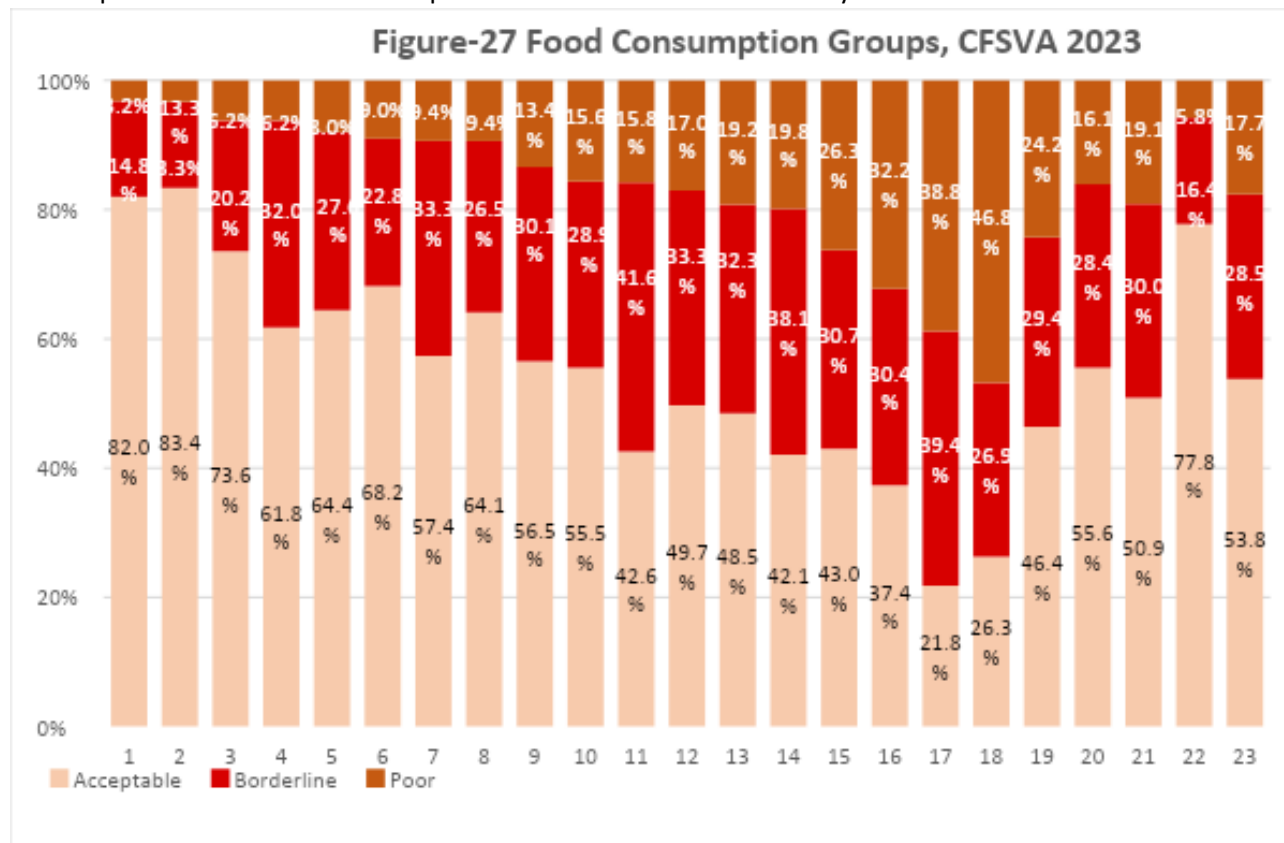


Map- Food insecurity by livelihood zones



4. Households' food consumption

Food consumption score (FCS) is the composite indicator of 8 food groups eaten during the last 7 days (one week) reference period. These food groups include cereals and tubers, pulses, protein (meat, seafood & fish and eggs), Dairy (milk and milk products), vegetable, fruit, cooking oil, sugar. FCS is one of the three indicators used for the calculation of food insecurity. The FCS considers dietary diversity, frequency of food consumption and the nutritional importance of the foods consumed by a household.



On average, 17.7 percent of the households have poor food consumption, while 28.5 percent are at the borderline in Burundi. The percentage of households with poor food consumption is much higher in rural at 19.1 percent compared to urban at 5.8 percent, while the percentage at borderline is almost doubled in rural areas compared to urban. The economic deterioration in rural areas compelled the households to go for minimum food groups across the country. The female headed households have a higher percentage of poor at 24.2 compared to male-headed at 16.1 percent.

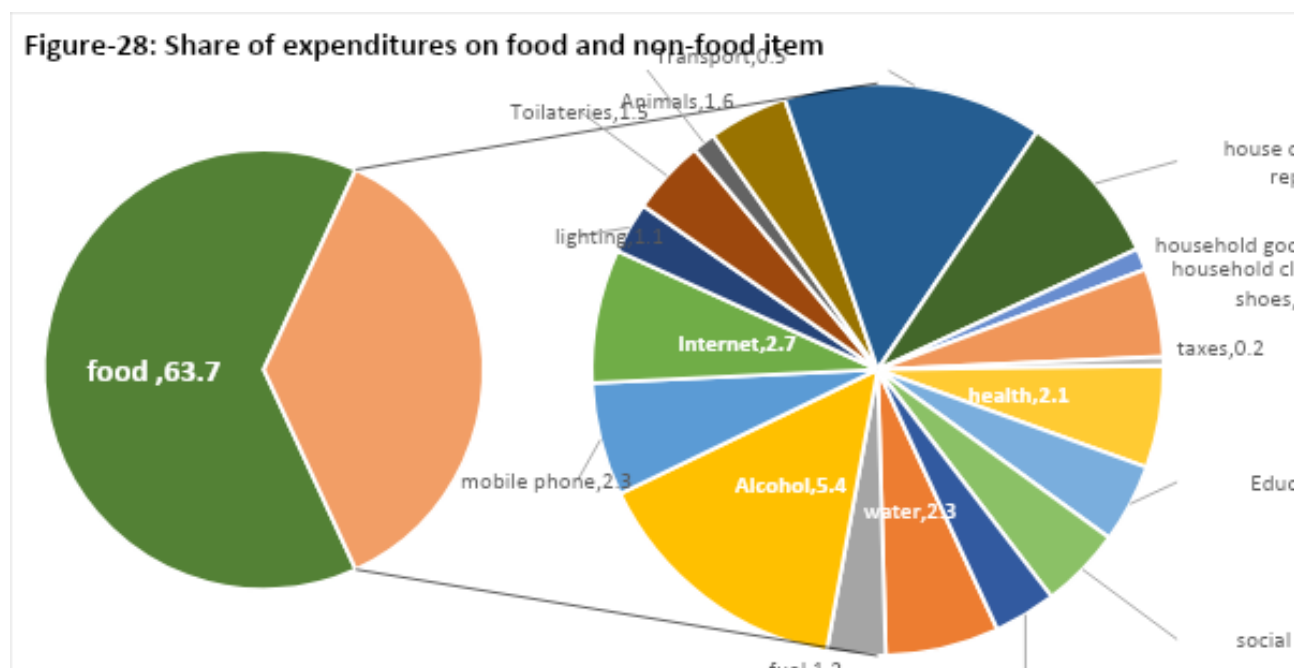
Regarding provinces, the highest percentage of households with poor consumption is in Kirundo at 24.2 percent, followed by Muramvya at 38.8 percent and Kayanza at 32.2 percent. The lowest percentage of households with poor food consumption is in Makamba at 3.2 percent, followed by Bujumbura Mairie at 3.3 percent and Rutana at 6.2 percent. The highest percentage of households at borderline is reported in Cibitoke at 41.6 percent, followed by Muramvya at 39.4 percent and Ruyigi at 38.1 percent.

5. Food expenditure share

Household expenditure is one of the important indicators of food security, especially the level of spending on food. Each household's head spends a ratio of his/her income on food. When the level of income reduces or when prices increase, the share of food expenditure as a proportion of total expenditure also increases. In such a situation, households with limited resources or low income or poor are forced to reduce spending on essential non-food items and services, such as education and health to meet the basic food needs.

On average, the share of spending on food is 63.7 percent of the total household expenditure in Burundi. Female-headed households spend more on food than male headed households (67.7 percent vs 62.8

percent) according to CFSVA 2023. The share of spending on food by households is higher in rural compared to urban areas (64.3 vs 59.3 percent).



Among the non-food expenditures, the highest percentage of spending was reported on Alcohol (5.4 percent). The second item with the highest expenditure is farm inputs including labour, where 5.3 percent of the budget is spent (mostly in rural areas). The third item is house construction and repair (3.1 percent), followed by internet (2.7 percent, mostly in urban), mobile phones (2.3 percent) and water (2.3 percent). Spending on health and education is comparatively less. However, on the other hands spending on alcohol is quite alarming.

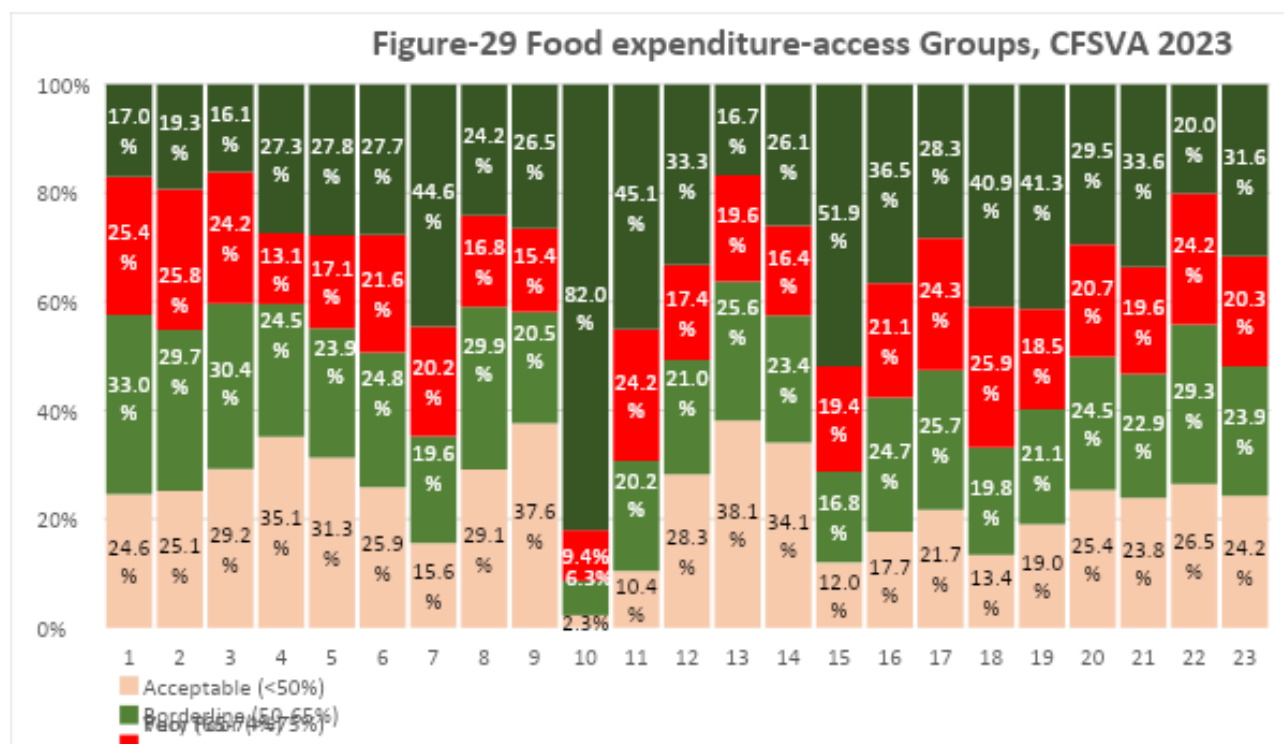
To measure the household's vulnerability, the share of expenditures devoted to food is segregated into four groups of households:

1. **Very poor** (those who spend more than 75.0 percent of their budget on food).
2. **Poor** (those who spend between 65.0 and 75.0 percent of their budget on food).
3. **Borderline** (those who spend between 50.0 and 65.0 percent of their budget on food). And
4. **Acceptable** (those who spend less than 50.0 percent of their budget on food).

According to CFSVA 2023, overall, 31.6 percent of households have very poor access to food, 20.3 percent poor and 23.9 percent at the borderline. The percentage of such categories are higher in rural areas compared to urban as 33.6 percent, 19.6 percent and 22.9 percent very poor, poor and at borderline compared to 20, 24.2 and 29.3 percent in urban area respectively. In terms of spending female-headed households are more vulnerable as 41.3 percent of them are in the very poor group compared to 29.5 percent among men.

Regarding provinces, the highest percentage of very poor households was reported in Kirundo (82 percent), followed by Ngozi (51.9 percent), MaKamba (45.1 percent), Gitega (44.6 percent) and Ruyigi (40.9 percent).

On the other hand, the highest percentage of households in the "acceptable" group is in Muyinga (38.1 percent), followed by Kaysanza (37.6 percent) and Bururi (35.1 percent).



6. Coping strategies

During economic recession or shocks, households use certain strategies to mitigate the effect of natural, economic or political disasters. Such strategies are unavoidable when households face food shortages. These strategies are composed of a variable called the coping strategies index (CSI). The Coping Strategies Index studies the activities undertaken by households to manage food shortages. The CFSVA 2023 took place during August and early September 2023 when the pre-hunger season was about to start. The two coping indicators were included in the analysis namely reduced coping strategy index (rCSI) and livelihood coping strategy index (LCSI).

6.1. The Reduced Coping Strategy Index

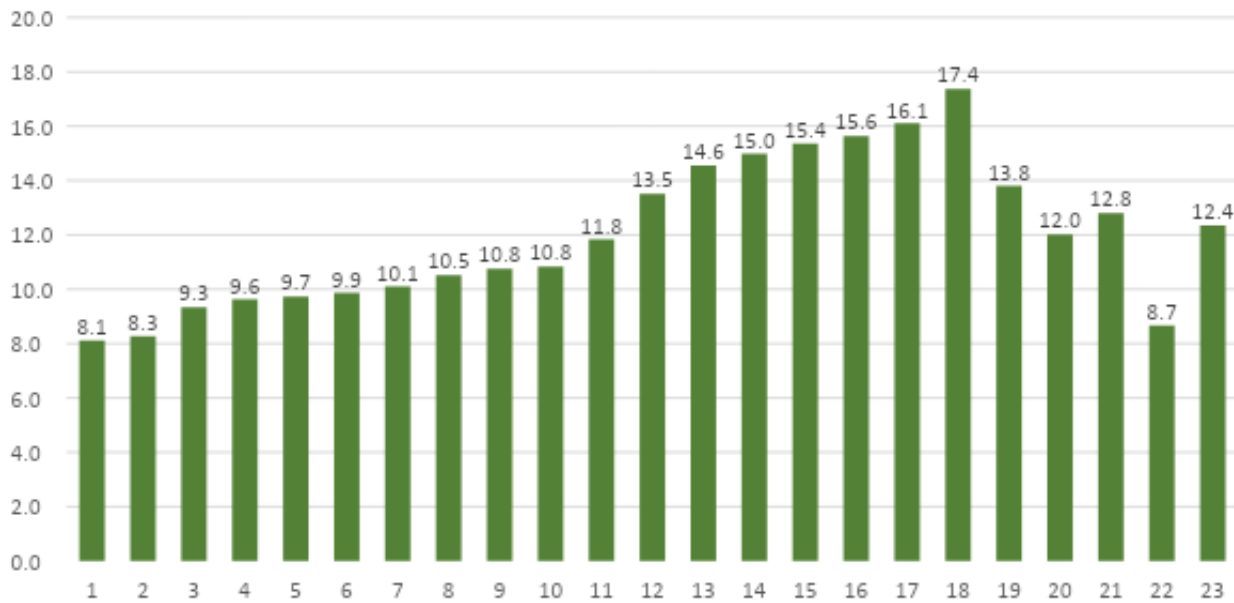
Reduced coping strategy index (rCSI), also called food-related CSI is used to assess the stress level faced by a household due to a food shortage during a disaster or otherwise. It is measured by combining the frequency and severity of the food consumption-based strategies households are engaged in. It is calculated using the five standard strategies using a 7-day recall period.

The following are the five-consumption based coping strategies:

1. Rely on less preferred and less expensive food
2. Borrow food or rely on help from relative(s) or friend(s)
3. Limit portion size at meals
4. Restrict consumption by adults for small children to eat
5. Reduce the number of meals eaten in a day

The rCSI measures the stress level a household is experiencing when exposed to food shortage by assessing the frequency of adoption during a 7-day period of the above-mentioned 5 food-related coping mechanisms, and their relative severity.

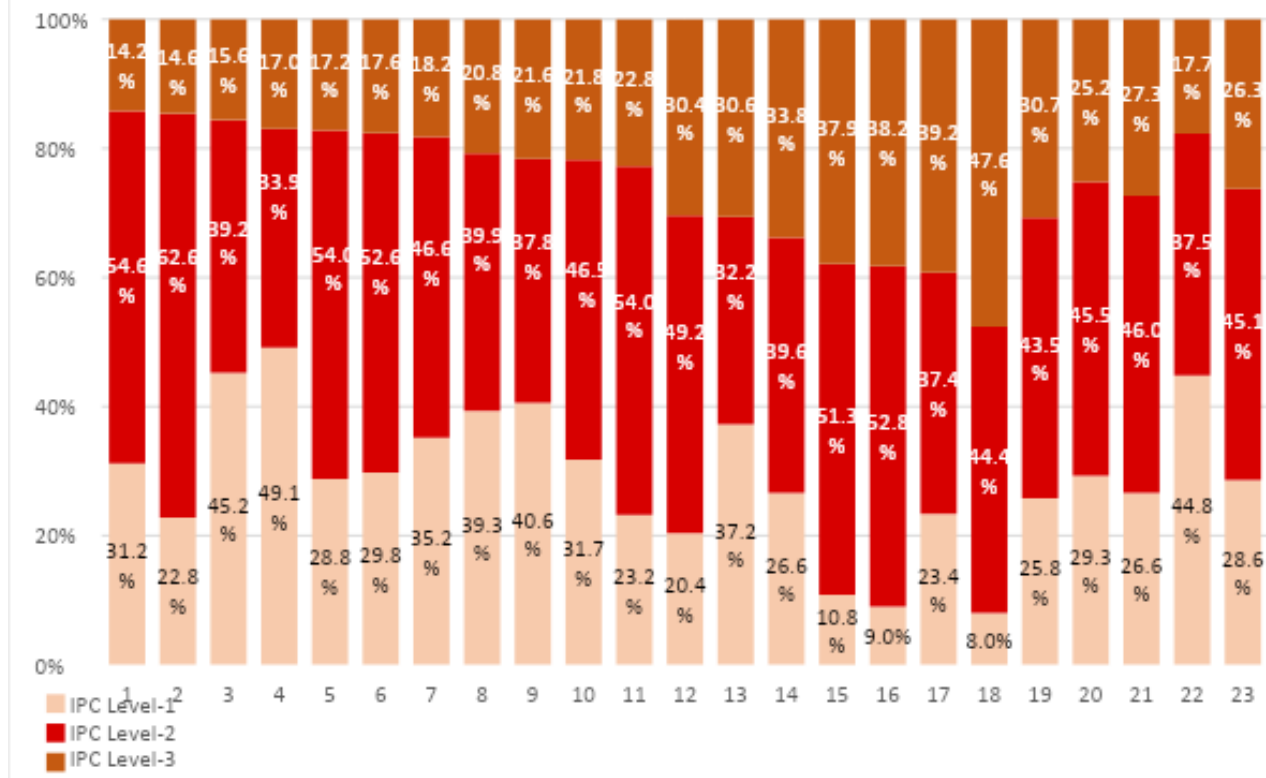
Figure-30 Reduced Coping Strategy Index (rCSI)



The higher the stress, the higher the index and consequently the behavioural responses. CFSVA 2023 reported the national rCSI average at 12.4, higher in rural as 12.8 compared to 8.7 in urban. The female-headed households have a higher index of 13.8 compared to male-headed at 12.

Among the provinces, the highest rCSI index was found in Bubanza at 17.4, followed by Cibitoke at 16.1 and Kirundo at 15.6. In 7 provinces the rCSI is higher than the national average, while the lower rCSIs were reported in 11 provinces. The lowest rCSI was reported in Mwaro at 8.1, followed by Bujumbura Mairie at 8.3.

Figure-31 rCSI-IPC category, CFSVA 2023



The rCSI while adapting to the Integrated Food Security Phase Classification (IPC) levels, at the national level 26.3 percent of the households are in phase 3, in rural 27.3 percent and urban 17.7 percent. Among female-headed households, 30.7 percent are in phase-3, while 25.2 percent among male-headed.

Among provinces Bubanza has the highest percentage of the population in phase-3 at 47.6 percent, followed by Kirundo at 39.2 percent and Cibitoke at 38.2 percent.

6.2. The Livelihood Coping Strategy Index (LCSI)

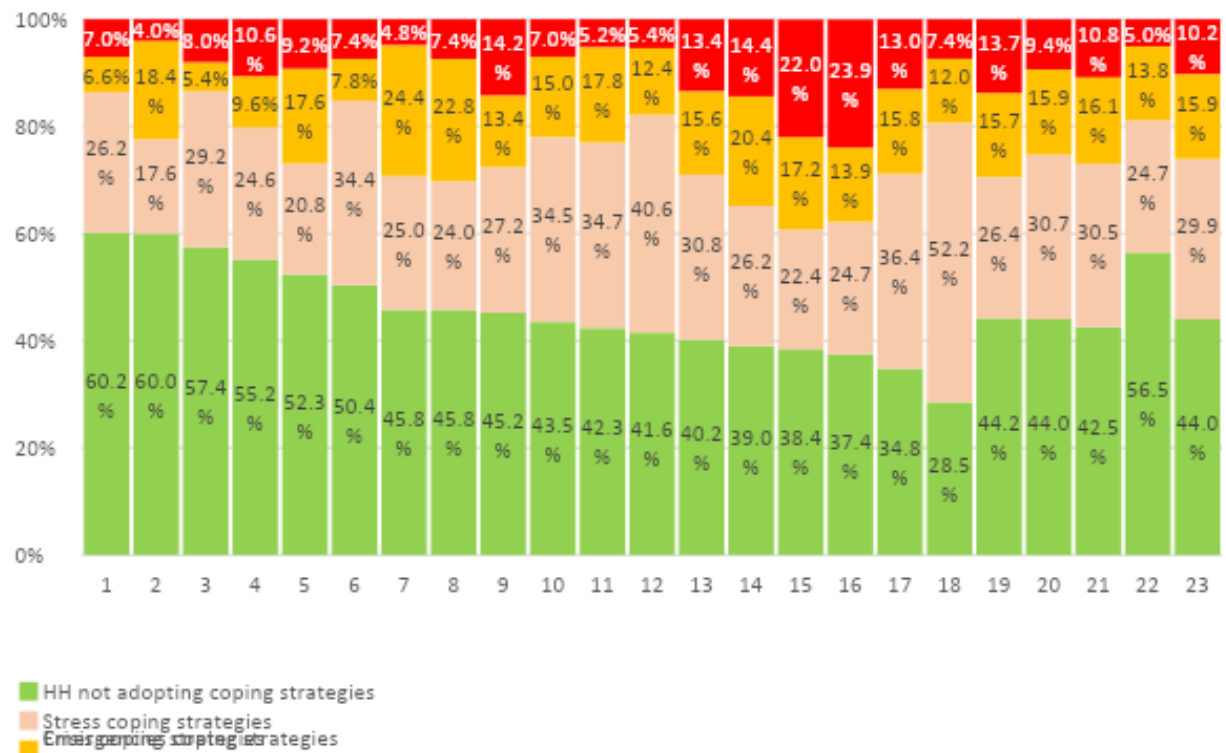
The livelihood coping strategies are used for the longer-term mitigation of risk. Thus, the LCSI is analysed to understand the longer-term coping capacity of households and is classified into three severity levels, namely stress, crisis and emergency coping strategies and are based on a 30-day recall period. Stress strategies indicate a reduced ability to deal with shocks as a result of a current reduction in resources or increase in debts. Crisis strategies are often associated with the direct reduction of future productivity. Emergency strategies also affect future productivity but are more difficult to reverse or more dramatic in nature than crisis strategies.

Stress coping strategies	Crisis coping strategies	Emergency coping strategies
Sell household assets/goods (radio, furniture, refrigerator, television, jewellery etc..) due to a lack of food or a lack of money to buy food?	Reduce non-food expenses on health (including drugs) and education	Mortgaged or sold house or land
Purchased food on credit	Sell productive assets or means of transport (sewing machine, wheelbarrow, bicycle, car, etc.)	begged
Spent savings due to lack of food	Withdraw children from school	Engaged in illegal income activities (theft, prostitution)
Borrow money due to lack of food		

According to the CFSVA 2023, In Burundi, more than half of the population (56 percent) have used at least one coping strategy during the last 30 days. Among them 29.9 percent have used stress coping strategies, 15.9 percent crisis and 10.2 percent emergency coping strategies. The percentage of people who used any coping strategy is much higher in rural areas (57.5 percent) compared to urban (42.5 percent). A sizable percentage of households have used emergency coping strategies (10.8 percent) in rural areas, which reflects the deteriorating situation and consequently the food insecurity in rural settlements. Similarly, among female-headed households, 13.7 percent have used emergency coping strategies against male headed at 9.4 percent.

Among the provinces, the highest percentage of households with emergency coping strategies was found in Bururi (23.9 percent), followed by Ryigi (22.0 percent) and Kirundo (14.4 percent). The majority of the households in these provinces are farmers who entered the lean season with limited or no stock of food available. Thus, a great percentage of them relied on emergency coping strategies to cope with the shortage of food.

Figure-32 Livelihood Coping Strategies, CFSVA 2023



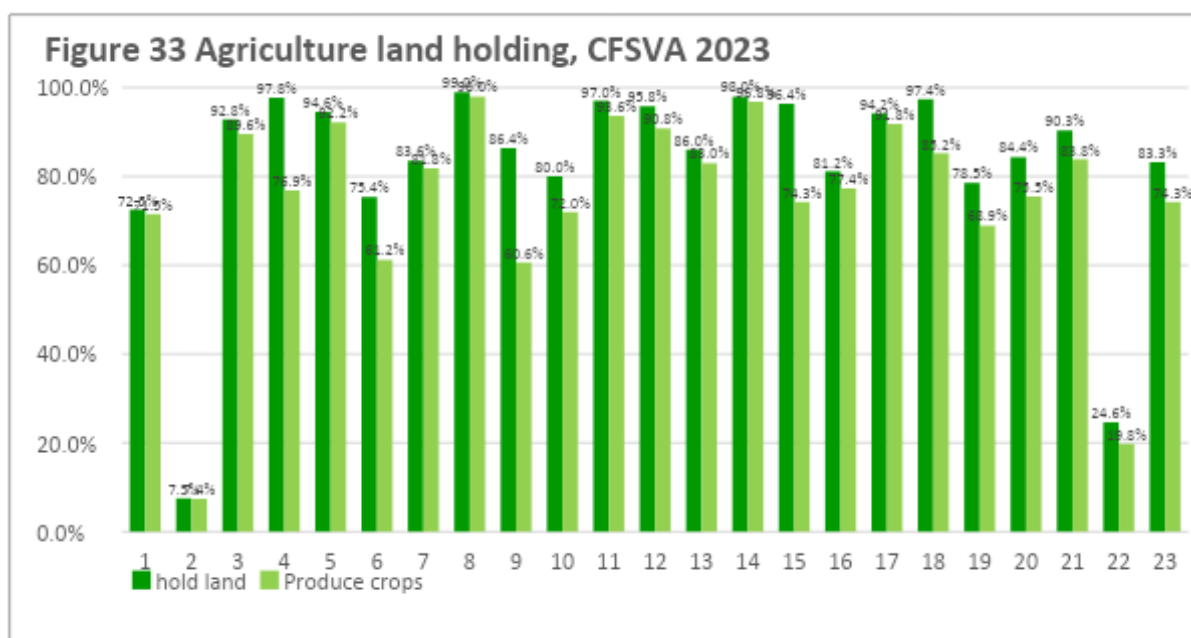
CHAPTER 4: Food availability

Food availability is the first pillar of food security. In each country, the availability of food is ensured through in-country production, imports, storage and aid/gift/donation. The major staple food crops in Burundi are Cassava, beans, sweet potatoes, plantains and maize. However, according to FAO a decline both in area and production in 2020 and 2021 against 2019 was observed, which has threatened the food availability at the country level.

1. Agriculture

1.1. Land cultivation and ownership

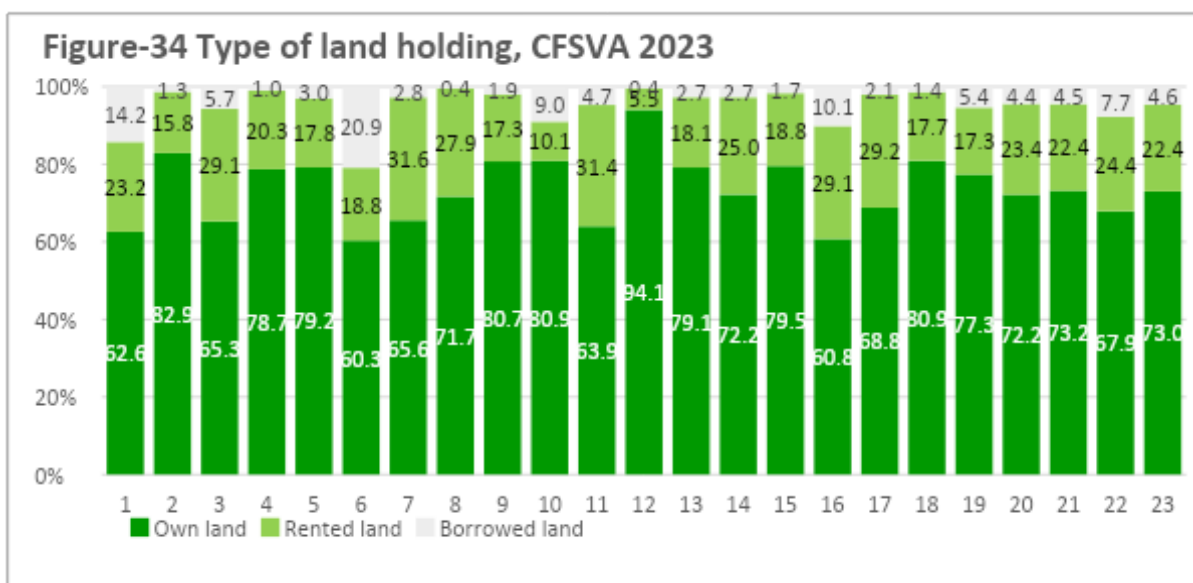
According to the CFSVA 2023, on average, 83.3 percent of the households possess land while 74.3 percent cultivate crops and are directly engaged in farming in Burundi. In rural areas, 90.3 percent possess some land while 83.6 percent cultivate crops. The highest percentage of farmers who produce crops is witnessed in Mwaro (96.8 percent), followed by Makamba (93.6 percent) and Rutana (91.8 percent).



Among the farmers, 46.1 percent produce crops during the dry season (swamp land).

The majority of swamp land farmers are reported in Bururi at 72.3 percent, followed by Kayanza at 70.6 percent, Muramvya at 62.1 percent and Ngozi at 61.8 percent.

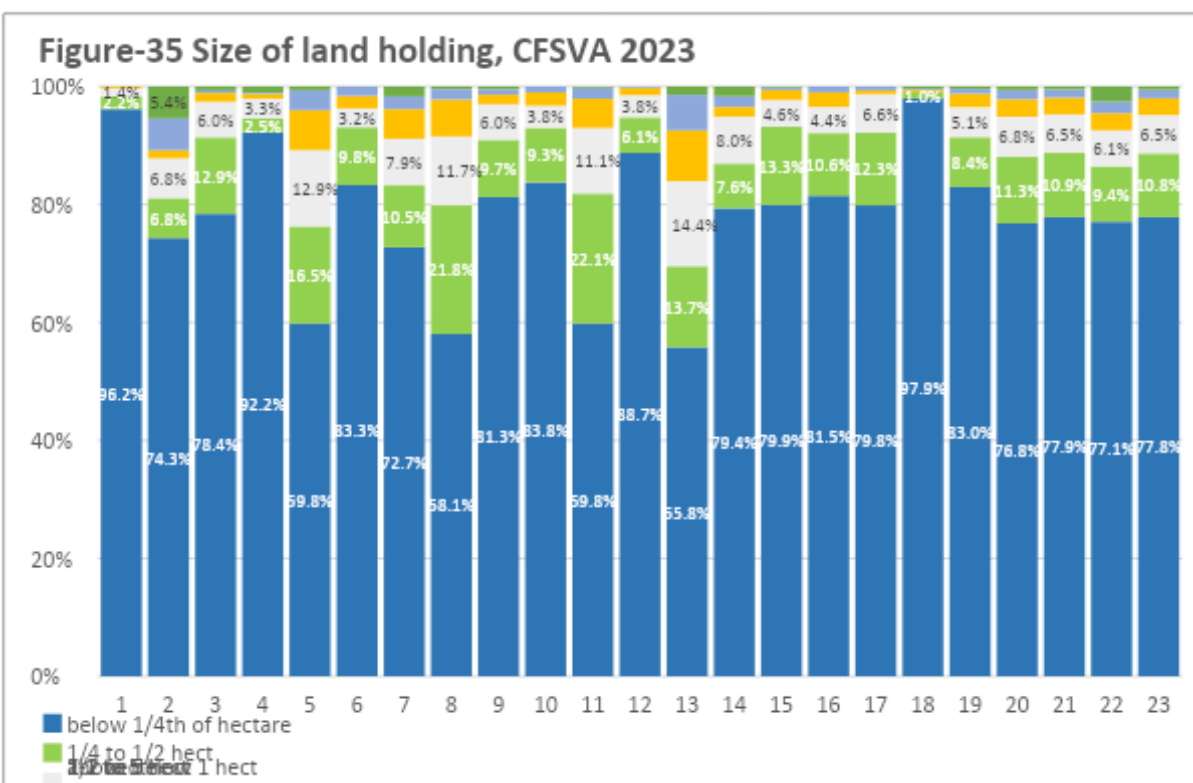
A great majority of the farmers, at 73 percent, have their own land for cultivation, while 22,4 percent are cultivating on rented land and a small number of 4.6 percent on borrowed land. The majority of rented land farmers are found in Gitega at 31.6 percent, followed by Makamba at 31.4 percent and Rutana at 29.2 percent.



Those who are cultivating on borrowed land are higher in Cibitoke at 20.9 percent, followed by Babanza at 14.2 percent and Rumonge at 10.1 percent. On the other hand, the landowners are higher in Muramvya (94.1 percent), Bujumbura Mairies (82.9 percent) and Ruyigi and Kirundo (both 80.9 percent each).

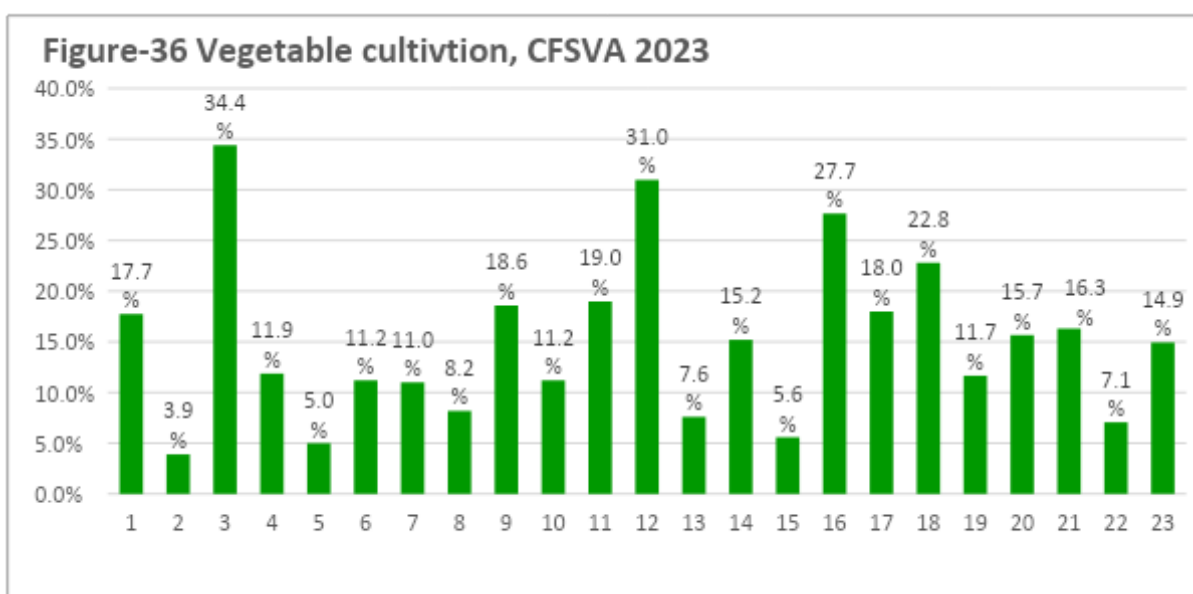
1.2. Size of cultivated land and production

In Burundi subsistence farming is practised on fragmented small-size farms and highly eroded soils that are becoming increasingly unproductive due to intensive farming. According to the CFSVA 2023, 95.2 percent of the farmers have a land size of less than 1 hectare, while 77.8 percent have less than 1/4th of a hectare of land. With such a size of land, farming could not meet the needs of households. Farmers with land holding of above 1 hectare were found in the highest percentage in Muyinga at 16



percent, followed by Bujumbura Rural at 12.2 percent and Cankuzo at 10.8 percent.

These subsistence farmers have limited capacity to mechanize farming, introduce modern practices and make use of improved seeds and adequate quantity of fertilizers. Farming is labour-intensive and seldom mechanization.



On average, 14.9 percent of the farmers have raised vegetables during the year. Interestingly, 7.1 percent of urban households also raised vegetables. It suggests that most of the urban areas have rural characteristics and is in transition from rural to urban condition. Among provinces, Bujumbura rural has the highest percentage of vegetables cultivation farmers at 34.4 percent, followed by Muramvya at 31 percent and Rumonge at 27.7 percent. The lowest percentage of vegetable cultivation farmers were found in Bujumbura Mairie at 3.9 percent, followed by Cankuzo at 5 percent, Ngozi at 5.6 percent and Muyinga at 7.6 percent. The vegetable cultivation is also lower among female headed households compared to male headed.

Farmers in Burundi are producing a number of crops mostly for their own consumption, keeping in view the smaller land size. However, some of the crops are cash crops like tea, coffee and others. The first main commodity is beans produced by 36.4 percent of farmers. The highest number of beans producers are in Ngozi at 77.6 percent, followed by Muyinga at 61.9 percent and Gitega at 57 percent.

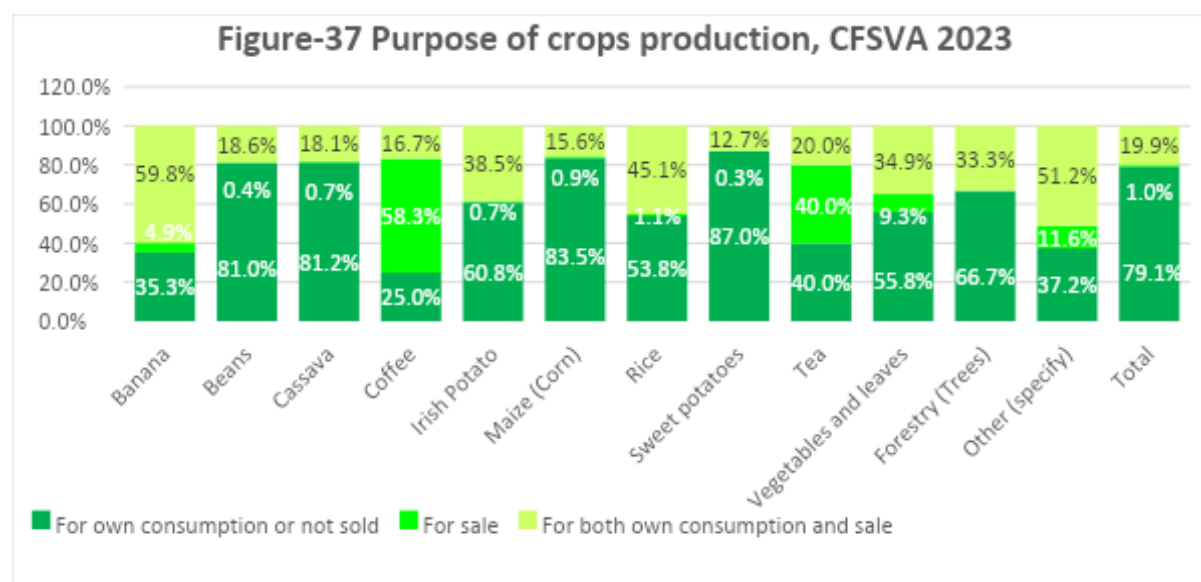
Table-12 First main commodity produced by farmers

Category	Area	Banana	Beans	Cassava	Coffee	Forestry (Trees)	Irish Potato	Maize (Corn)	Rice	Sweet potatoes	Tea	Vegetables and leaves	Other
Province	Bubanza	1.1%	10.9%	58.5%	0.3%	0.0%	0.0%	16.4%	9.5%	1.7%	0.0%	0.6%	1.1%
	Bujumbura mairie	0.0%	35.1%	16.2%	0.0%	0.0%	1.4%	31.1%	10.8%	4.1%	0.0%	1.4%	0.0%
	Bujumbura rural	0.7%	20.3%	42.4%	0.2%	0.0%	3.1%	14.5%	1.3%	11.4%	0.2%	2.0%	3.8%
	Bururi	0.5%	35.1%	9.7%	0.0%	0.0%	7.9%	19.4%	0.0%	27.0%	0.3%	0.0%	0.3%
	Cankuzo	1.1%	49.7%	13.9%	0.0%	0.0%	0.4%	22.1%	5.4%	4.3%	0.2%	0.2%	2.6%
	Cibitoke	0.7%	22.5%	51.0%	0.0%	0.0%	0.0%	19.0%	1.3%	2.3%	0.7%	1.6%	1.0%
	Gitega	1.7%	57.0%	8.6%	0.0%	0.5%	3.2%	9.5%	2.7%	16.4%	0.2%	0.0%	0.2%
	Karusi	3.5%	52.3%	18.1%	0.0%	0.2%	0.6%	15.1%	4.1%	4.7%	0.0%	0.2%	1.2%

	Kayanza	0.0%	26.4%	3.3%	0.0%	0.0%	5.9%	55.8%	4.6%	2.0%	0.0%	0.7%	1.3%
	Kirundo	2.8%	51.7%	27.8%	0.3%	0.0%	1.4%	9.2%	2.8%	3.6%	0.3%	0.0%	0.3%
	Makamba	0.0%	35.3%	34.6%	0.0%	0.0%	1.5%	25.0%	1.7%	0.6%	0.2%	0.0%	1.1%
	Muramvya	0.4%	31.1%	18.7%	0.2%	0.0%	2.9%	18.3%	0.2%	23.3%	0.4%	0.4%	4.0%
	Muyinga	6.3%	61.9%	11.8%	0.5%	0.0%	0.5%	9.2%	4.3%	4.1%	0.2%	0.5%	0.7%
	Mwaro	1.4%	30.8%	9.5%	0.2%	0.0%	3.9%	20.7%	0.0%	31.6%	0.4%	0.6%	0.8%
	Ngozi	1.3%	72.6%	8.3%	0.8%	0.0%	0.8%	8.1%	7.8%	0.3%	0.0%	0.0%	0.0%
	Rumonge	1.6%	7.3%	61.4%	0.5%	0.0%	1.0%	17.9%	0.3%	9.1%	0.3%	0.5%	0.3%
	Rutana	0.9%	32.5%	33.1%	0.0%	0.0%	0.2%	27.7%	4.6%	0.7%	0.0%	0.2%	0.2%
	Ruyigi	0.5%	15.5%	32.9%	0.0%	0.0%	3.1%	27.7%	12.7%	3.5%	0.2%	2.8%	1.2%
Sex of HH head	Female	1.5%	40.9%	24.2%	0.1%	0.1%	1.8%	17.9%	2.8%	8.5%	0.3%	0.5%	1.3%
	Male	1.4%	35.5%	25.8%	0.2%	0.0%	2.2%	19.9%	3.9%	9.0%	0.2%	0.6%	1.2%
Area category :	Rural	1.5%	36.5%	25.9%	0.2%	0.0%	1.9%	19.0%	3.6%	9.2%	0.2%	0.6%	1.2%
	Urban	0.4%	33.2%	18.6%	0.0%	0.0%	5.7%	31.1%	6.1%	2.9%	0.0%	1.1%	1.1%
	Total	1.4%	36.4%	25.6%	0.2%	0.0%	2.1%	19.5%	3.7%	9.0%	0.2%	0.6%	1.2%

Cassava is the 2nd main crop produced by 25.6 percent of farmers across the country. The highest percentage of Cassava producers is in Rumonge at 61.4 percent, followed by Bubanza at 58.5 percent and Cibitoke at 51 percent. Maize is the 3rd major crop produced by 19.5 percent of farmers in the country. Highest percentage of maize producers are in Kayanza at 55.8 percent, followed by Bujumbura Mairies at 31.1 percent and Rutana and Ruyigi both with 27.7 percent.

Sweet potatoes are the 4th major crop of Burundi produced by 9 percent of farmers as the first main crop. Mwaro province has the highest percentage of farmers producing sweet potatoes.



Coffee and tea are the main agricultural exports of Burundi earning cash to meet the basic food and non-food needs of the farming families. It also employs many people throughout the value chain process.

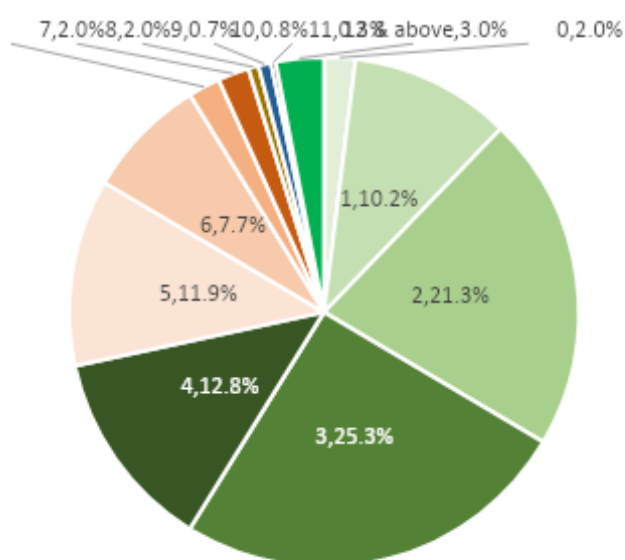
The majority of Farmers raise crops for their consumption and partly for sale to meet the expenses of non-food and food items they are not cultivating. A number of crops are grown in Burundi as explained earlier. On average, 79.1 percent of farmers produce crops for their own consumption, 19.9 percent for both their own consumption and sale, while 1 percent is only for sale.

Some of the crops are cash crops like coffee and tea and are mostly produced for sale. According to CFSVA 2023, 75 percent of the farmers produce coffee for sale including own consumption, while 60 percent of tea growers sell tea. The staple food is mostly produced for own consumption, like maize is produced by 83.5 percent of farmers only for own consumption, , beans by 81 percent, sweet potatoes by 87 percent and cassava by 81.2 percent. Some crops are for both purposes, like Banana, rice, vegetable, and Irish potatoes.

1.3. Food Consumption

Keeping in view the small size of the land holding, farmers produce food mostly for their own consumption. A great majority of the farmers (71.6 percent) can produce only for up to 4 months of their consumption and 7.7 percent for 6 months of consumption. Only 3 percent of the farmers produces crops for 12 months or above of consumption. This means that only 3 percent of the farmers can sell surplus production in the market.

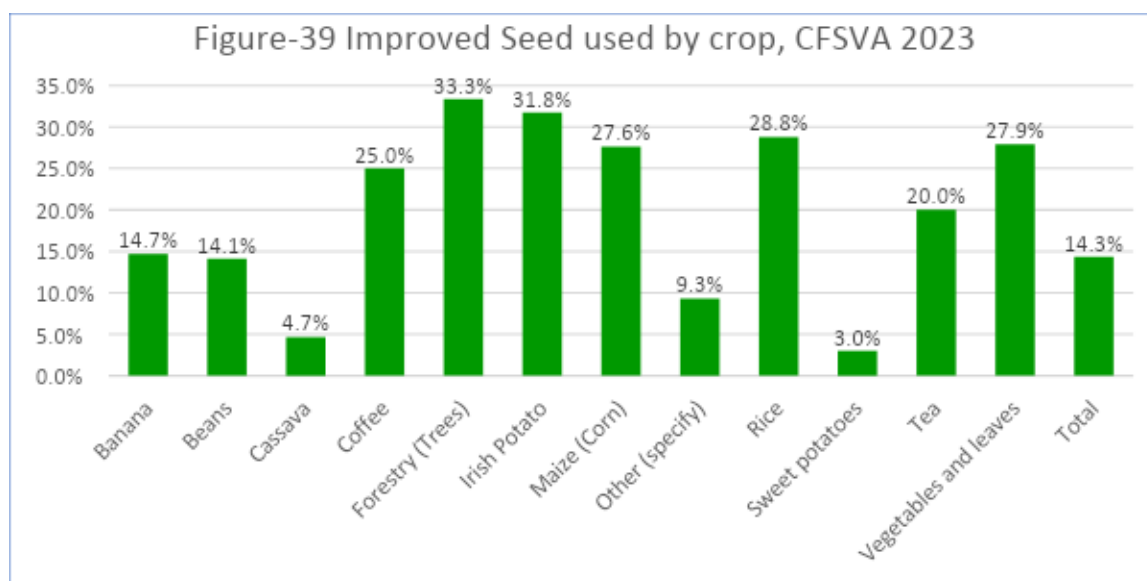
Figure-38 Food production and consumption, CFSVA 2023



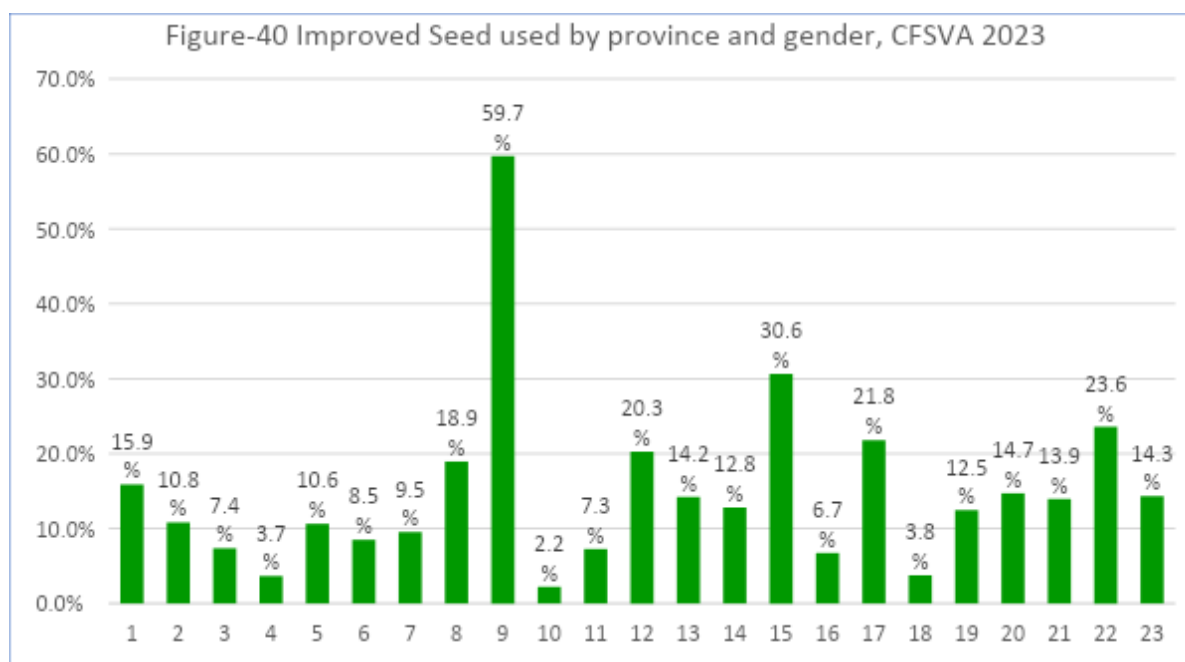
It should be noted that on average, around 21 percent of the farmers sell their products in the market, much higher than the surplus producers. The reasons are that farmers need cash to buy other food and non-food commodities and pay their loans, health, school fees and other expenses. They also don't have storage facilities to keep the stock for a long time period. As a consequence, the farmers start buying the same food after a few months at a higher price. This is a cycle of food insecurity in rural areas of Burundi.

1.4. Inputs for crop production

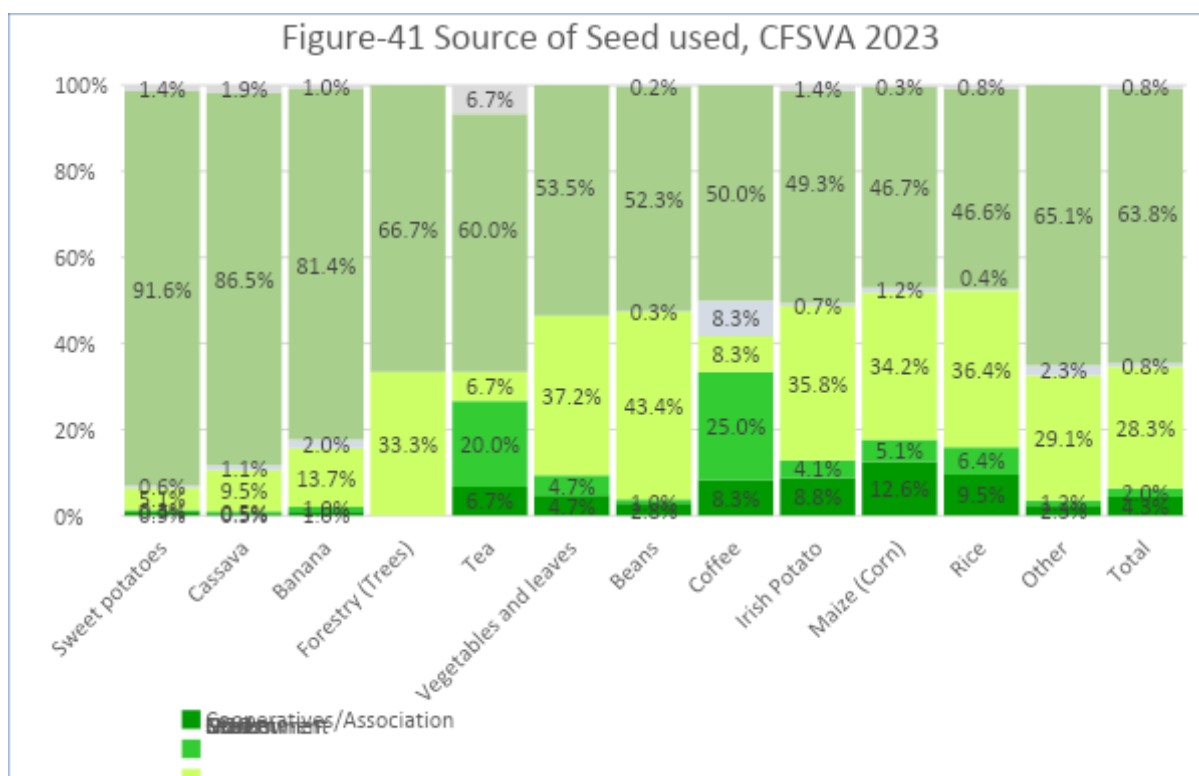
Better crop production depends on good seed and adequate manure or fertilizer. Although, farmers use improved seed for various crops, but the usage is quite low. On average only 14.3 percent of farmers use improved seed. Among crops the highest percentage of farmers used improved seed of Irish potatoes at 31.8 percent, followed by rice at 28.8 percent, vegetables 27.9 percent and maize 27.6 percent. Almost all farmers use local seed for cassava and sweet potatoes.



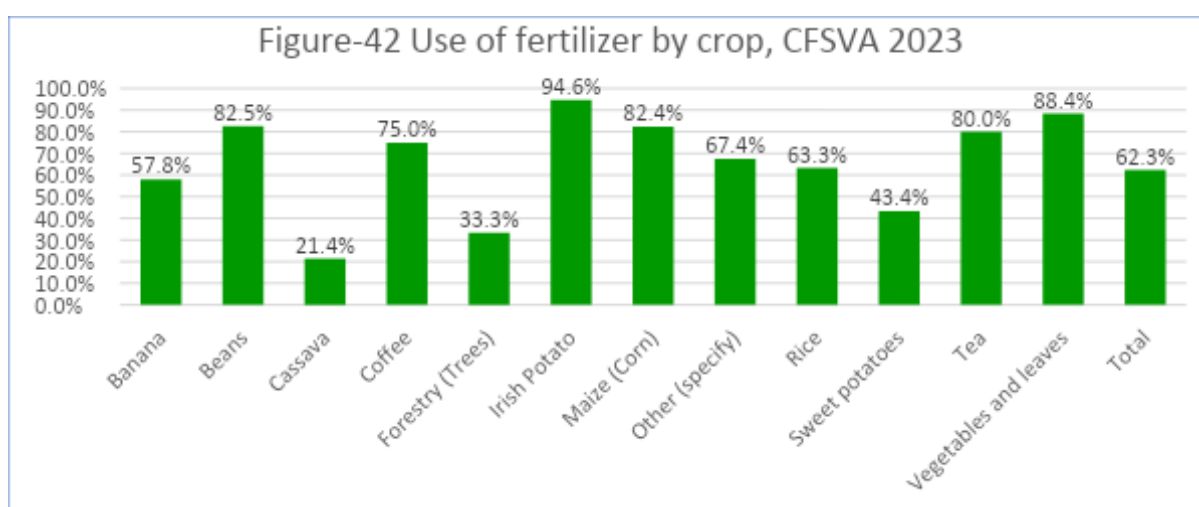
In addition to the smaller land size, better seed is the major hurdle in increasing crop production in Burundi. Measures should be taken to disseminate improved seed among farmers for all major crops like beans, cassava, banana, coffee, tea and potatoes. According to the farmers the local coffee trees do not produce coffee every year but alternative year. Thus, it is important to introduce high yield coffee plants with regular production.



Among provinces, the highest percentage of improved seed is used in Kayanza at around 60 percent, followed by Ngozi about 31 percent and Rutana at 22 percent. The lowest percentage of farmers who used improved seed was found in Kirundo province. Kirundo is also the most food insecure province, thus, improved seed has positive correlation with food security of the households. Among other factors, seed is the most important one in increasing crop production.



Majority of the farmers used their own seed or purchased from seed owners in the area, almost for all crops. Around 53 percent of the farmers purchased seed from seed owners/farmers. In the case of rice, 36.4 percent of farmers purchased from the market, while 46.6 percent bought from seed owners. In the case of coffee, 25 percent farmers received seed/plants from cooperatives/associations and 8.3 percent from the government. Similarly, tea seed/plants were received from cooperatives/associations by 20 percent of farmers and from government by 6.7 percent of them. Another crop supported by government is the maize, where 12.6 percent of them received seed. It is quite evident that seed is mostly purchased from the seed owners, while contribution by the government and other players is minimal.



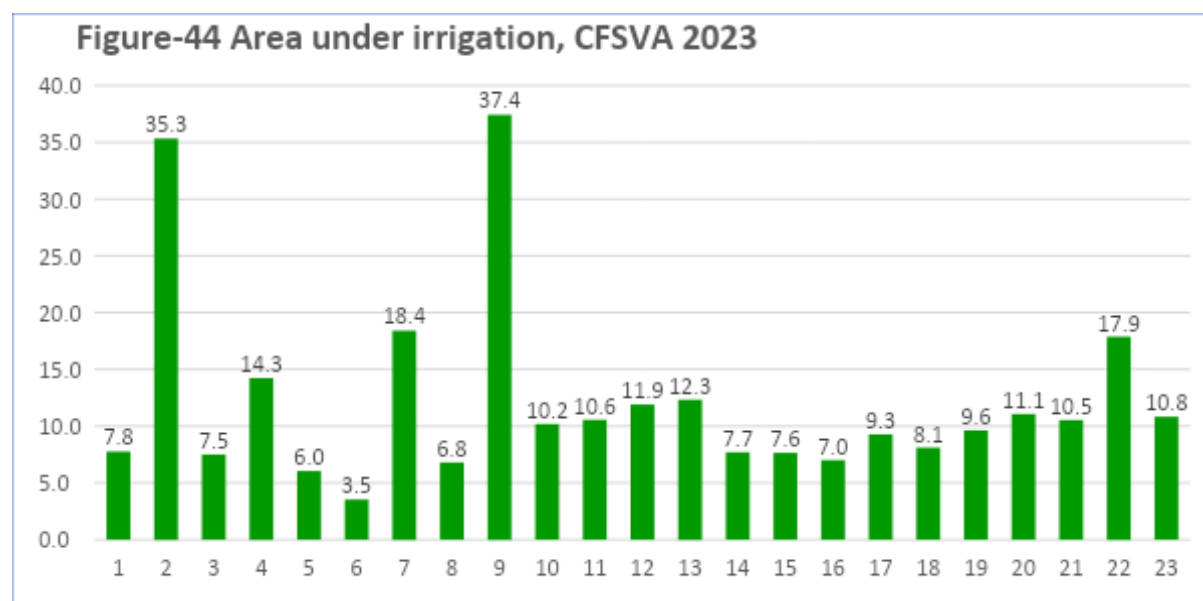
Use of fertilizer varies by type of crop. The majority of the farmers applied fertilizer to Irish potatoes and vegetables. Both these crops are commercial crops in Burundi and mostly sold in the market. Quite few farmers applied fertilizer to Cassava and sweet potatoes.



The usage of fertilizer varies by province, but it is also linked to the type of crops raised there. The highest percentage of farmers using fertilizer was found in Kayanza at 92.1 percent, followed by Ngozi at 88.2 percent and Mwaro at 82.6 percent. Overall, 62.3 percent of farmers applied fertilizer to their crops. This means that around 38 percent of farmers did not apply fertilizer to crops at all. On the other hand, farmers mostly do not keep livestock to produce own manure for crop production. As a result, the crop yield is quite low in the country.

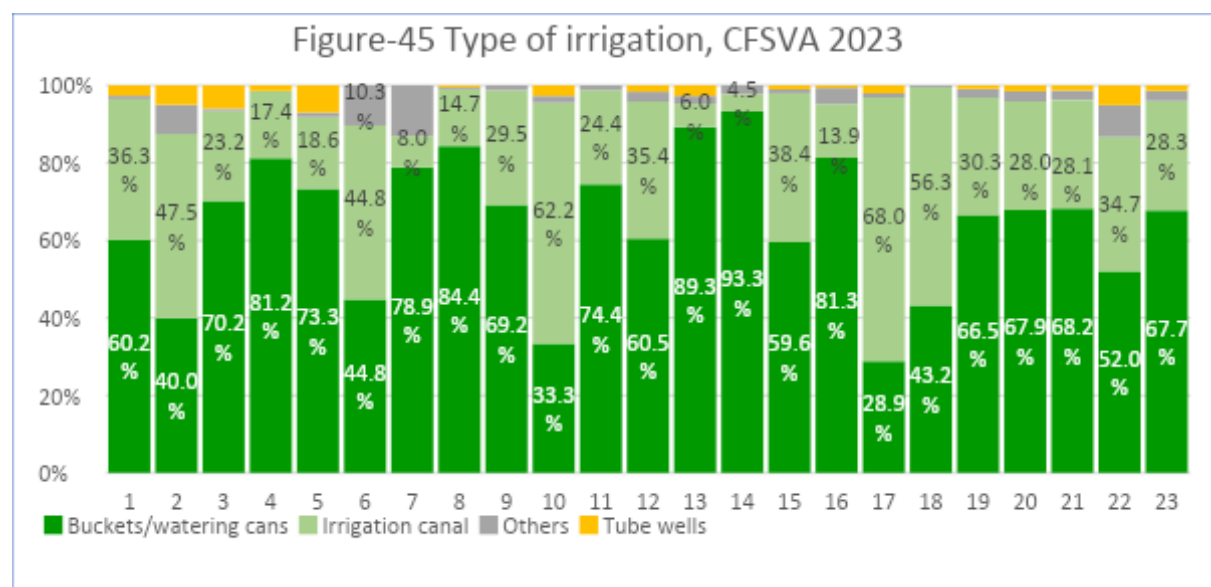
1.5. Irrigation

Irrigation is quite important to provide timely water to crops, especially in dry season and in areas with low rainfall.



On average, 10.8 percent of cultivated area is under irrigation in the country. Most of the irrigated land is in urban areas at 17.9 percent against rural at 10.5 percent. Female headed households have less irrigated land at 9.6 percent compared to male headed at 11.1 percent.

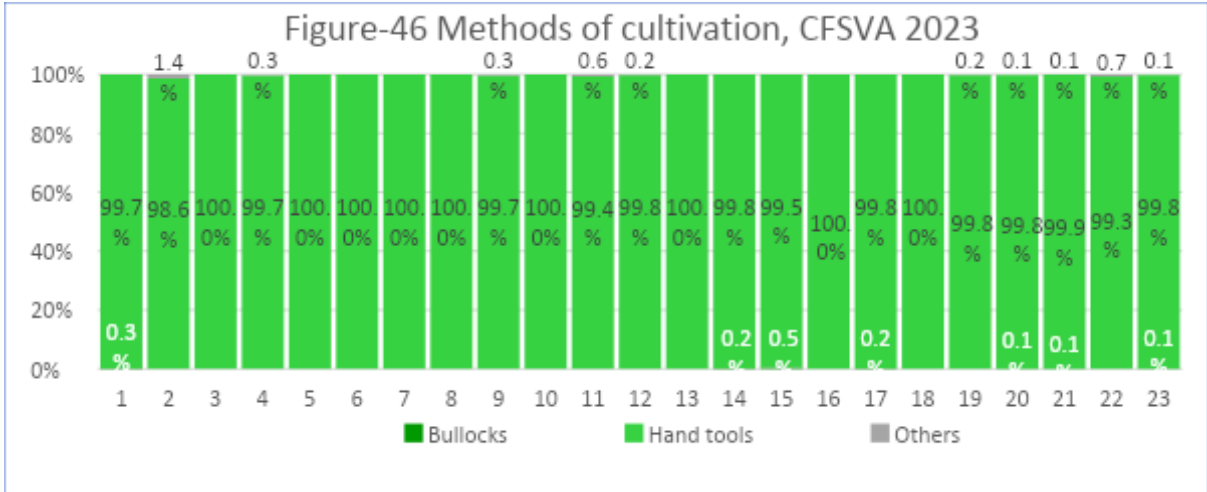
Among provinces, the highest share of irrigated land is in Kayanza at 37.4 percent, followed by Bujumbura Mairie at 35.3 percent and Gitega at 18.4 percent. Majority of the provinces have quite lower share of irrigated land in total cultivated land. The lowest share of irrigated land is reported in Cibitoke at 3.5 percent, followed by Cankuzo at 6 percent and Karusi at 6.8 percent.



Farmers in general has small land holding and thus have no proper irrigation system in place. Thus, majority of the farmers use buckets/cans for watering the crop (67.7 percent). However, 28.3 percent use proper irrigation system for irrigating their fields. The proper irrigation system was found in a number of provinces including Rutana (68 percent), Kirundo (62.2 percent), Ruyigi (56.3 percent) and Bujumbura Mairie (47.5 percent).

1.6. Mechanization

Mechanization is an important contributing factor in increasing land under cultivation, reduce manual labour and reduce time in cultivation, harvesting and crop management. Unfortunately, in Burundi, almost all farmers use hand tools for farming. It is partly because of small land size, more human labour availability, and economic capacity of the farmers.



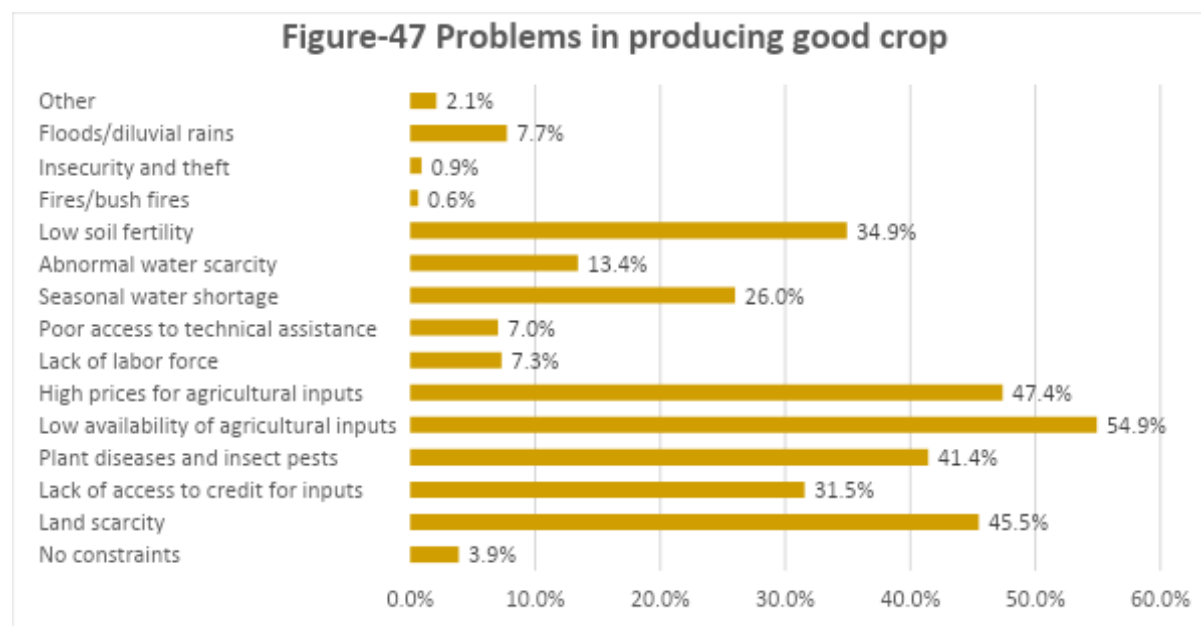
Mechanization is a key to rapid growth in agriculture production by increasing land under a particular crop and save time on the cultivation, management and harvesting.



1.7. Problems in Farming

Farmers are facing a series of problems in attaining good crop. CFSVA 2023 investigated some of the major problems farmers face presently. The most serious problem is the non-availability of agriculture inputs as reported by 54.9 percent of the farmers. The second major issue is the high prices of agriculture inputs like seed, fertilizer and pesticides. The 3rd issue is the small land size, 4th is the crop diseases and insect attack, and 5th problem is the low soil fertility.

Although, it will take some time but all the above issues except the land size can be solved with efforts by the government and other stakeholders working in the agriculture sector, like INGOs, UN agencies and development partners.

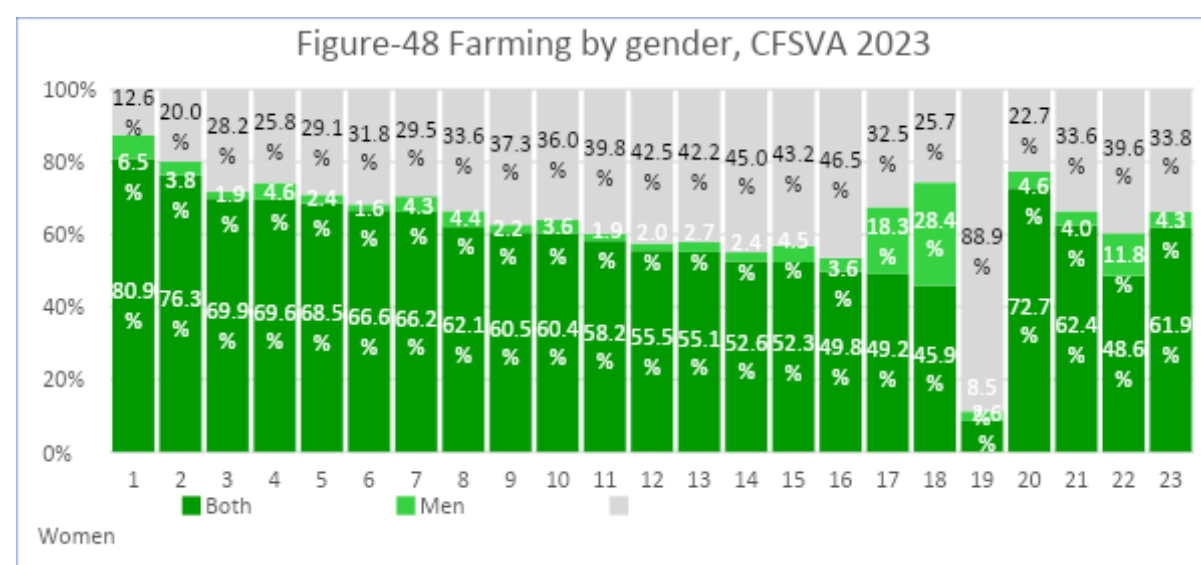


1.8. Gender and farming

In Burundi, both males and females are involved in farming being a family livelihood. However, in addition to both males and females, 33.8 percent of females are directly involved alone in farming compared to 4.3 percent of males. Thus, in nutshell farming is predominantly females work with higher percentage of women involved in the crop production at various stages.

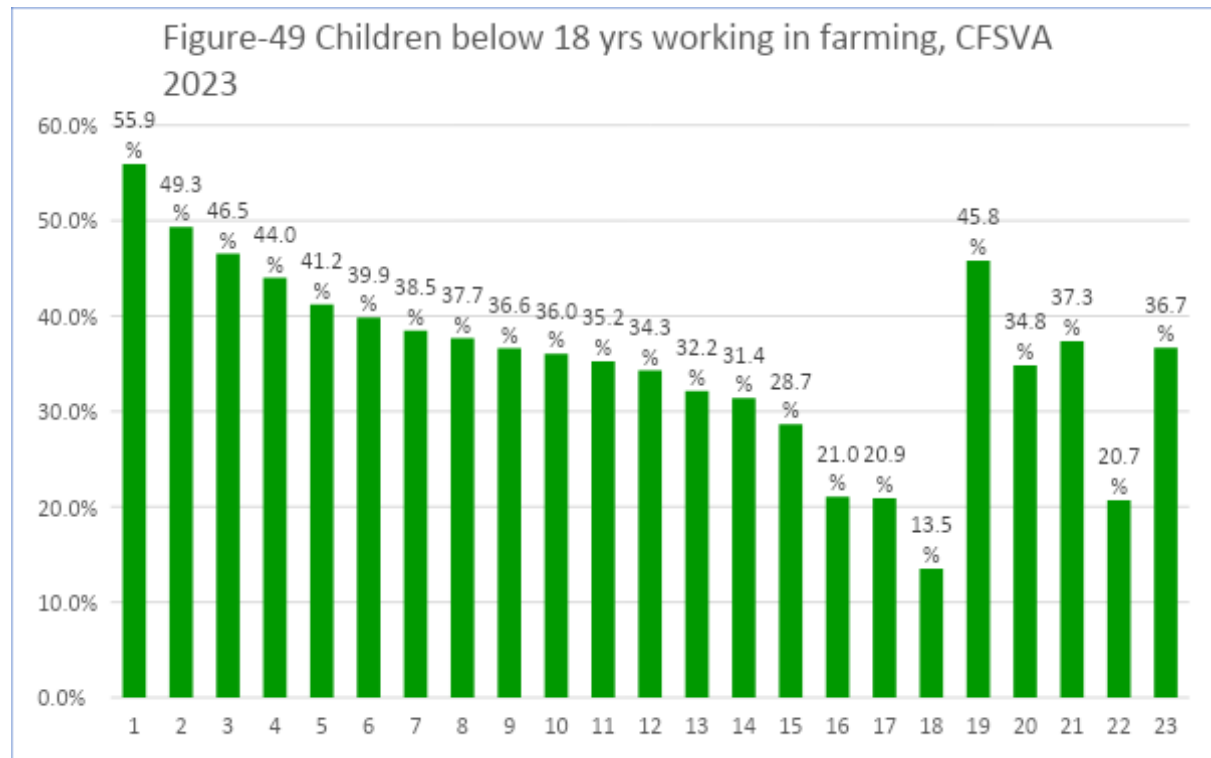
The highest percentage of females working alone in farming was reported in Kayanza at 46.5 percent, followed by Gitegat at 45 percent and Mwaro at 43.2 percent.

Females are under enormous burden of work not only to raise crops but also to take care of domestic task including cooking, cleaning and taking care of children.



1.9. Child Labour in farming

Farming is a family livelihood in Burundi and all members of the family are involved including children in raising crops. The CFSVA 2023 found that children below 18 years age of 36.7 percent of households are working in farming mostly as unpaid family workers. The percentage of such families is higher in female-headed households at 45.8 percent than male-headed at 34.8 percent.

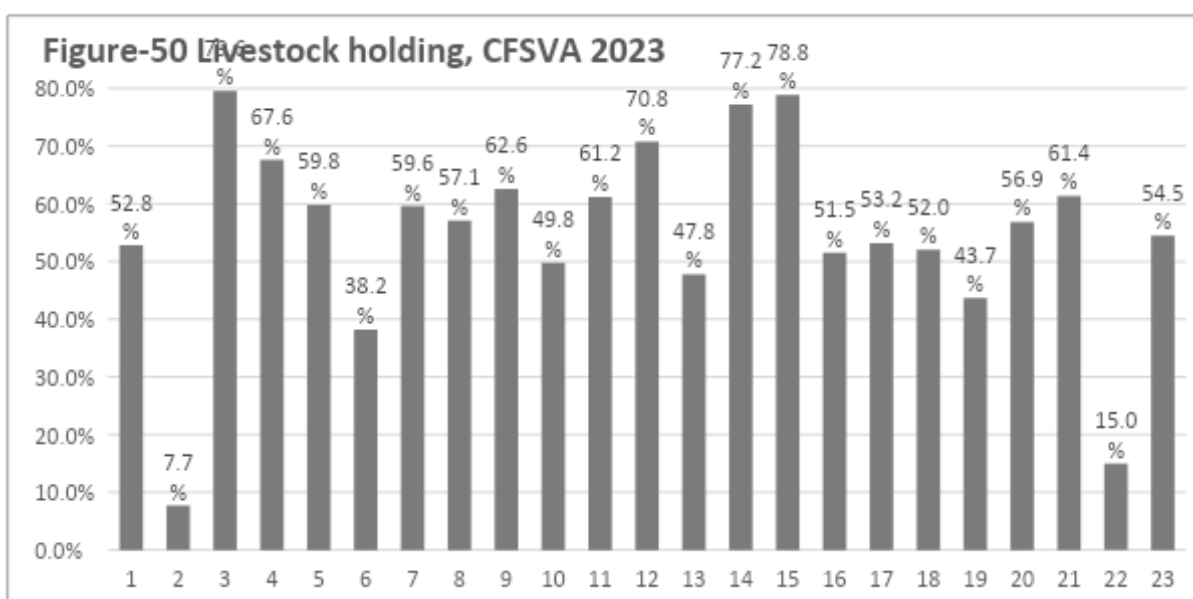


Among provinces, the highest percentage of households with children working in farming is found in Ngozi at 55.9 percent, while the lowest in Bujumbura Mairie at 13.5 percent. It should be noted that majority of the children work in off-farm activities in Bujumbura Mairie being an urban town. Majority of them sell various items in the streets.

2. Livestock rearing

According to the CFSVA 2023, 54.5 percent of households keep livestock including chicken. The rural inhabitants are in the majority in keeping livestock (61.5 percent), however, a sizable percentage of households also keep livestock in urban areas (15 percent). In urban areas, especially in the emerging urban areas of the provinces. The livestock are kept mostly for their own consumption and partly for sale as a coping strategy during stress periods.

Provinces with the highest percentage of livestock keepers are Bujumbura Rural at 79.6 percent, followed by Ngozi at 78.8 percent and Mwaro at 77.2 percent.



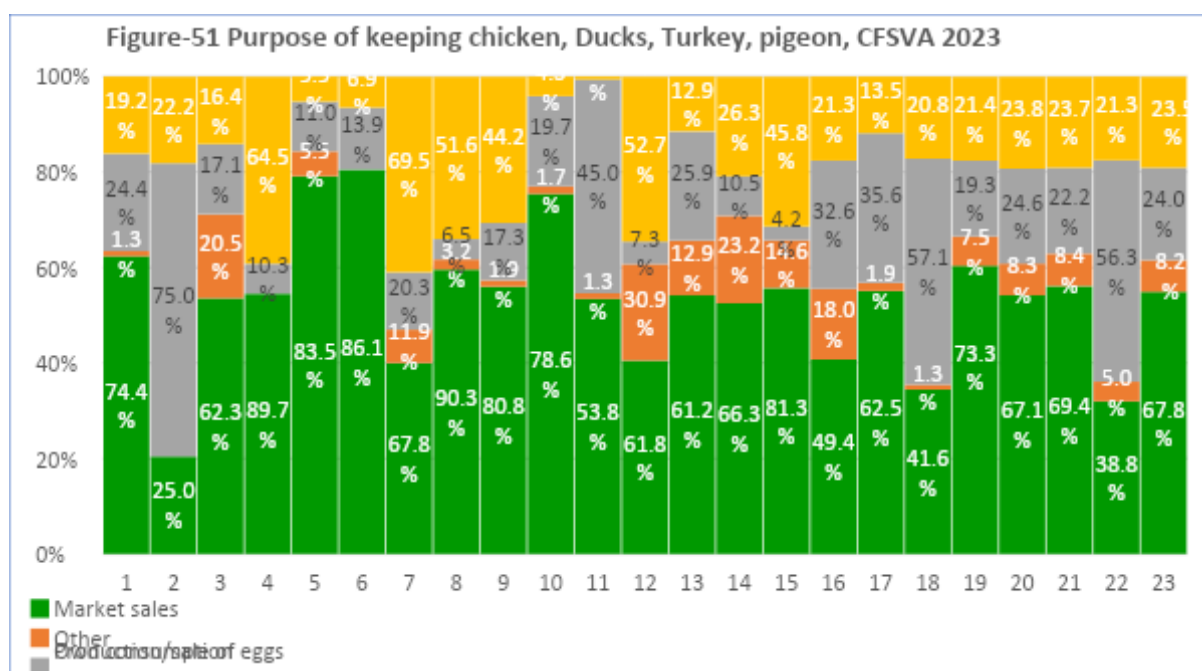
Chicken and goats are the major livestock kept by the households with an average size of 1.5 per household. The majority of goats are reported in Cankuzo at 2.4 per household, followed by Ruyinga and Ruvigi with a size of 2 each. Cows are in higher numbers in Bururi with an average size of 2 per household, followed by Bujumbura Mairie with 1.2.

Table-13 Livestock holding by type in Burundi, CFSVA 2023

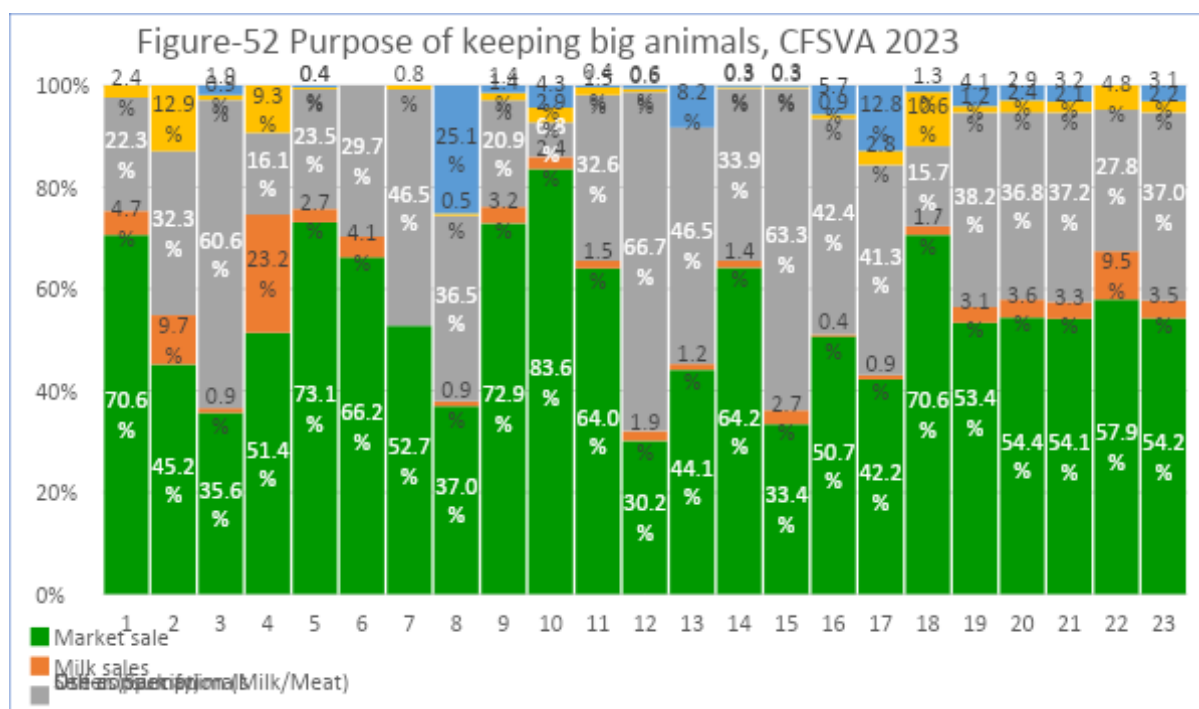
Category	Area	Chickens/ Ducks/ Turkeys	Goats	Sheep	Pigs	Cows	Guinea pigs	Rabbits	other animals
Province	Bubanza	1.2	1.4	0.1	0.6	0.4	3.1	0.5	0.0
	Bujumbura mairie	3.3	0.7	0.1	0.3	1.2	0.2	1.3	0.1
	Bujumbura rural	1.6	1.1	0.3	0.9	0.5	3.4	1.0	0.0
	Bururi	1.9	0.9	0.8	0.6	2.0	0.1	0.3	0.0
	Cankuzo	2.1	2.4	0.1	0.4	0.4	1.1	0.9	0.0
	Cibitoke	1.7	1.2	0.1	0.5	0.4	1.7	0.3	0.1
	Gitega	1.2	1.2	0.1	0.8	0.3	1.2	1.1	0.0
	Karusi	1.6	1.4	0.2	0.4	0.3	1.6	0.9	0.0
	Kayanza	0.7	1.1	0.1	0.7	0.5	1.5	0.8	0.0
	Kirundo	1.9	1.9	0.1	0.5	0.2	1.2	0.9	0.0
	Makamba	2.8	1.9	0.2	0.7	0.5	0.8	0.5	0.1
	Muramvya	0.7	0.9	0.1	0.7	0.7	1.9	1.0	0.0
	Muyinga	2.0	2.0	0.1	0.2	0.2	3.4	1.4	0.2
	Mwaro	1.0	1.3	0.2	0.7	0.8	1.8	1.2	0.0
	Ngozi	0.5	1.8	0.2	0.5	0.5	1.4	0.9	0.0
	Rumonge	1.8	1.7	0.5	0.5	0.5	1.4	0.6	0.1
	Rutana	2.2	1.8	0.1	0.4	0.5	0.4	0.6	0.1

	Ruyigi	1.3	2.0	0.1	0.3	0.2	0.6	0.5	0.0
Sex of HH head	Female	1.1	1.5	0.2	0.5	0.5	1.4	0.5	0.0
	Male	1.6	1.5	0.2	0.6	0.6	1.6	0.9	0.0
Area category	Rural	1.5	1.5	0.2	0.6	0.6	1.6	0.8	0.0
	Urban	2.3	0.8	0.1	0.6	0.8	0.2	1.3	0.0
	Total	1.5	1.5	0.2	0.6	0.6	1.6	0.8	0.0

The number of goats per household is higher in rural (1.5) compared to urban (0.8). Both male and female-headed households keep the same number of goats (1.5) each. Cattle are limited in number. On average 0.6 cattle are kept per household. Cattle are more common in urban and among male-headed households.



The main purpose of keeping chicken and birds is to sell in the market as part of their livelihoods. Among small animals' keepers, 67.8 percent reported sales in the market, 24 percent used for own consumption and 23.5 percent sold animal products like eggs etc. These animals are kept as a part of a coping strategy and used to fill the gap in income and consumption during a stress period.

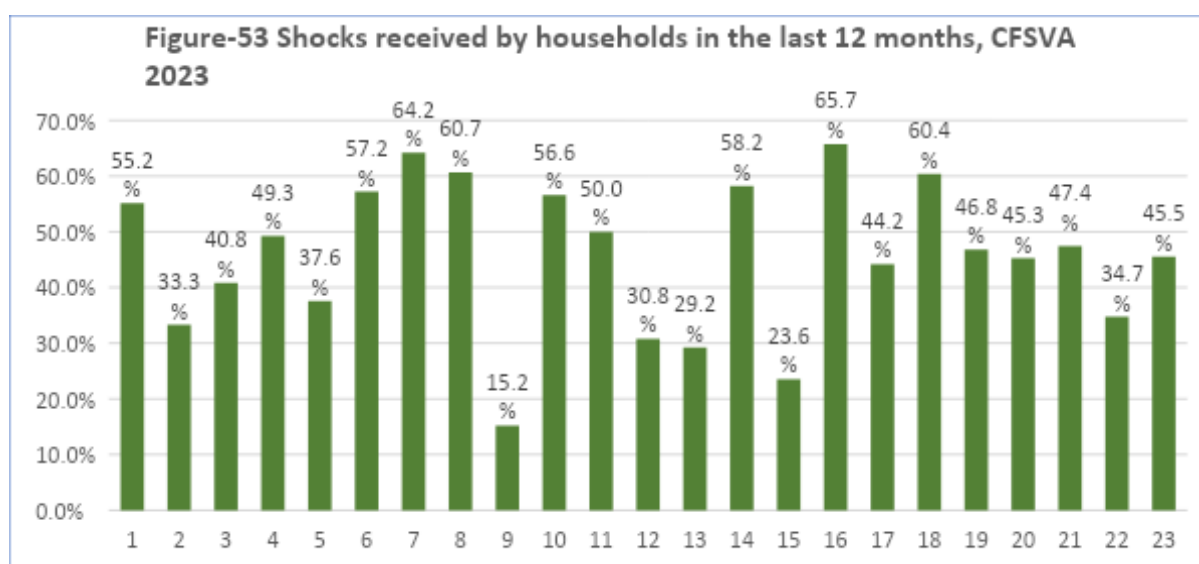


The main livestock like goats, sheep and cattle are kept for sale and used for meat production. However, in rural setup these livestock are kept for manures to use in their fields for crop production. For example, in Muramvya 66.7 percent of livestock reported keeping it for manures production for their fields.

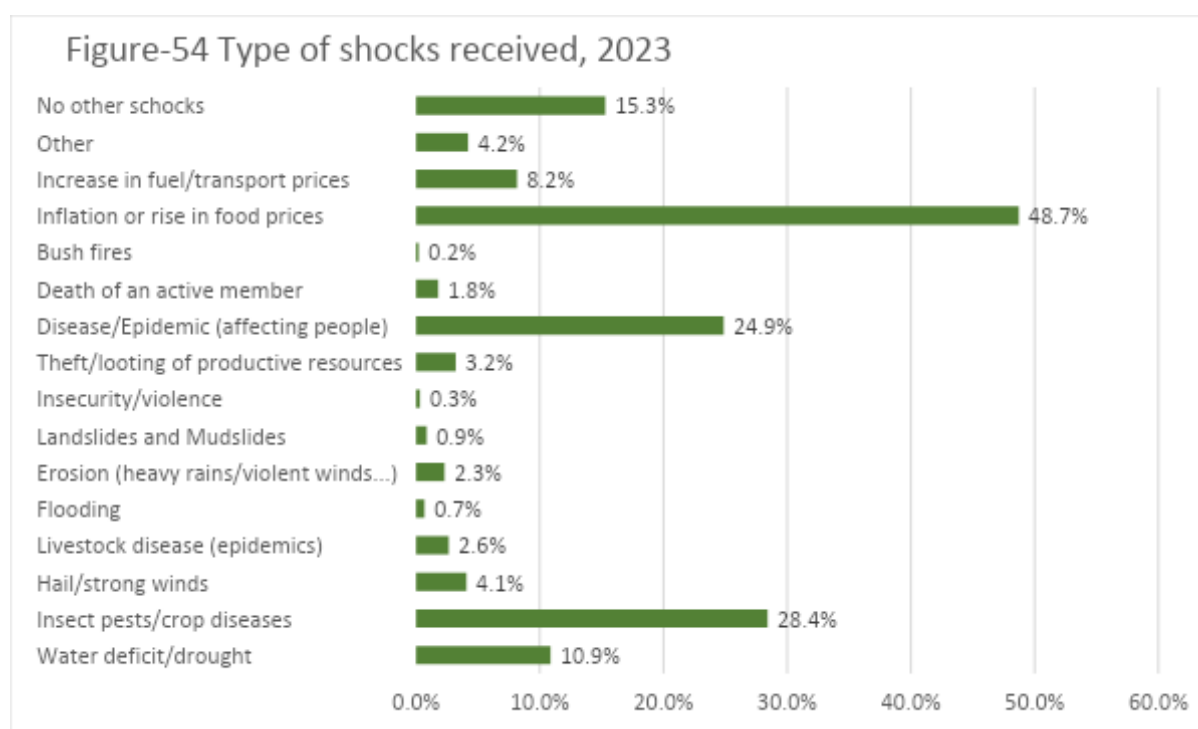
Although the households keep chicken and small animals like sheep/goats for the festivals and guests, keeping these animals are part of the coping strategy. When there is a shortage of food or they need money for other basic needs, the households sell some of these heads.

3. Disasters in Burundi

During unstable situations, the households experienced different kinds of shocks. Some of these shocks affect the household's ability to get food and non-food needs. In order to know the types of shocks received by the households, we asked them "Was there any shock in the last 12 months that impacted your household's ability to produce and purchase sufficient food to meet your needs?". On average, 45.5 percent of the households reported at least one shock affected them during the last 12 months. The percentage of households reported shocks is higher in rural at 47.4 percent compared to 34.7 in urban. The highest percentage of households reported shocks are found in Rumonge at 65.7 percent, followed by Gitega at 64.2 percent. The percentage of people who reported shocks is higher in female-headed households at 46.8 percent compared to male-headed at 45.3 percent. for both male-headed as well as female-headed households.

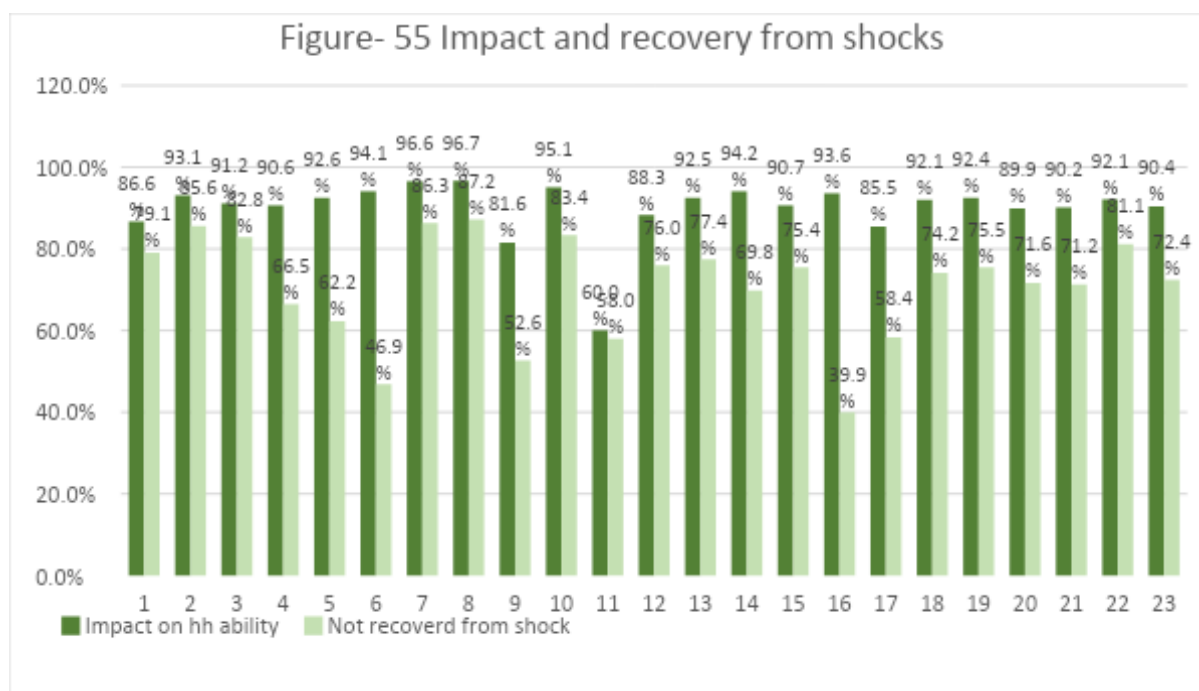


The households reported around 16 shocks that confronted them during the year. The major shock was inflation or a rise in food prices as reported by 48.7 percent, more in urban (75.8 percent) compared to rural (46.2 percent), while female headed households confronted more shocks (51 percent) than male-headed (48.1 percent). Among provinces, Bujumbura Mairie has the highest percentage of households who reported the price hike as the major shock at 84.7 percent, followed by Bururi at 83.3 percent.



The Insect pests/crop diseases were the 2nd and one of the significant shocks reported by 28.4 percent of the households, the majority in Makamba at 71.2 percent, followed by Ruyigi at 64.9 percent and Rutana at 39.8 percent.

The diseases/epidemics including COVID-19 was the 3rd major shock as reported by 24.9 percent of the households, more in rural (25.5 percent) compared to urban (18.2 percent) while female-headed households confronted more (27.6 percent) than male-headed (24.2 percent).



All these shocks have affected the people both in urban and rural at various levels. According to CFSVA 2023, 90.4 percent of households are reported affected by such disasters mentioned earlier. Among them 72.4 percent still have not recovered from shocks. The shocks have affected the highest percentage of households among female-headed households compared to male and urban residents against rural. Price inflation has a greater impact on the urban population who are highly dependent on markets for food and non-food items. Among provinces, Karusi and Getega have the highest percentage of households affected by disasters.

The shocks are still affecting the majority of households in the country both in rural as well as in urban areas.



CHAPTER 5: Food accessibility

Food access refers to a household's ability to get an adequate quantity of nutritious food to lead a healthy life through different means, such as own production, aid or purchases at the market.

It is important to mention that the CFSVA 2023 household data collection took place in August and the beginning of September 2023 when the lean season started. Thus, the purchases from markets were high as the majority of the farmers were unable to make their production ready for consumption.

1. Sources of food

The most common food in Burundi is beans, which are eaten on average once a day and have transcended social classes. Beans are eaten with rice or in combination with other food items. Other major food items include maize, cassava, banana and sweet potatoes. Vegetables are also used as part of the diet, especially in urban setups.

During the survey period, on average, 58.3 percent of the households were purchasing cereals (Rice, pasta, bread, sorghum, millet, maize, potato, yam, cassava, white sweet potato, etc.) from the markets mostly on cash. Even in rural areas, 52.1 percent of households were buying cereals from markets. Similarly, pulses (beans, cowpeas, peanuts, lentils, nut, soya, pigeon pea and/or other nuts) were purchased by 60.1 percent of households, where 54 percent were from rural. This suggests that during the survey time, the previous harvest was mostly exhausted and new crops were still to come.

2. Food production versus consumption at the household level

In order to understand the relationship between production and consumption, we have analysed the status of a few major crops including beans, Cassava, maize and sweet potatoes.

According to the CFSVA 2023, 36.4 of farmers produce beans as their first major commodity. The analysis shows that among these farmers, on average, only 2 percent produce sufficient beans to cover their 12 months needs and able to sell in the market. All the rest of the farmers produce insufficient to meet their needs for the whole year. Around 93 percent of farmers produce beans for only up to 6 months of their domestic consumption, while 57.3 percent only up to 3 months consumption. However, farmers raise crops in 2 major seasons and one minor season during the year and some of the crops are repeated. Beans are mostly cultivated as an intercrop with maize or others.

Cassava is another major crop produced by 25.6 percent of farmers as a major crop. Among cassava grower's 5.4 percent of farmers produce enough to meet the annual consumption needs and can sell the surplus quantity in the market. Among them 87.1 percent can produce only to meet their needs for 6 months while 55.6 percent for 6 months consumption needs.

Maize is produced as a first major crop by 19.5 percent of farmers. Maize is produced in multiple seasons during the year. Among them only 1.9 percent produce enough to sell in the market in addition to meet their annual domestic needs. The 93 percent of maize producing farmers, as the first major crop, are able to only meet their domestic needs for up to 6 months. In addition, 63.2 percent of farmers can only produce enough to meet their own needs for up to 3 months.

Sweet potatoes are produced by 9 percent of farmers as their first major crop. Among them, only 2.4 percent produce sufficient sweet potatoes for 12 months of consumption and can sell in the market. Nearly 95 percent of sweet potatoes growing farmers produce for 6 or fewer months consumption, while 66.6 percent only for up to 3 months consumption.

Although, the production of the above crops is quite limited, even inadequate to meet the consumption of farmers themselves, a great majority of them sell in the market soon after harvest. Around 21 percent of farmers sell their products in the market, including, 19 percent of beans, 18.8 percent of Cassava, 16.5 percent of maize and 13 percent of sweet potatoes farmers. Consequently, farmers, after some time, start buying the same type of food commodity in the market with a higher price. The major reasons for such trading are to buy other food items they don't grow, non-food items, pay the loan and to meet the health, transport and other expenses. This is a vicious circle of food insecurity where the farmers are trapped in.

Figure-56: Food self-sufficiency

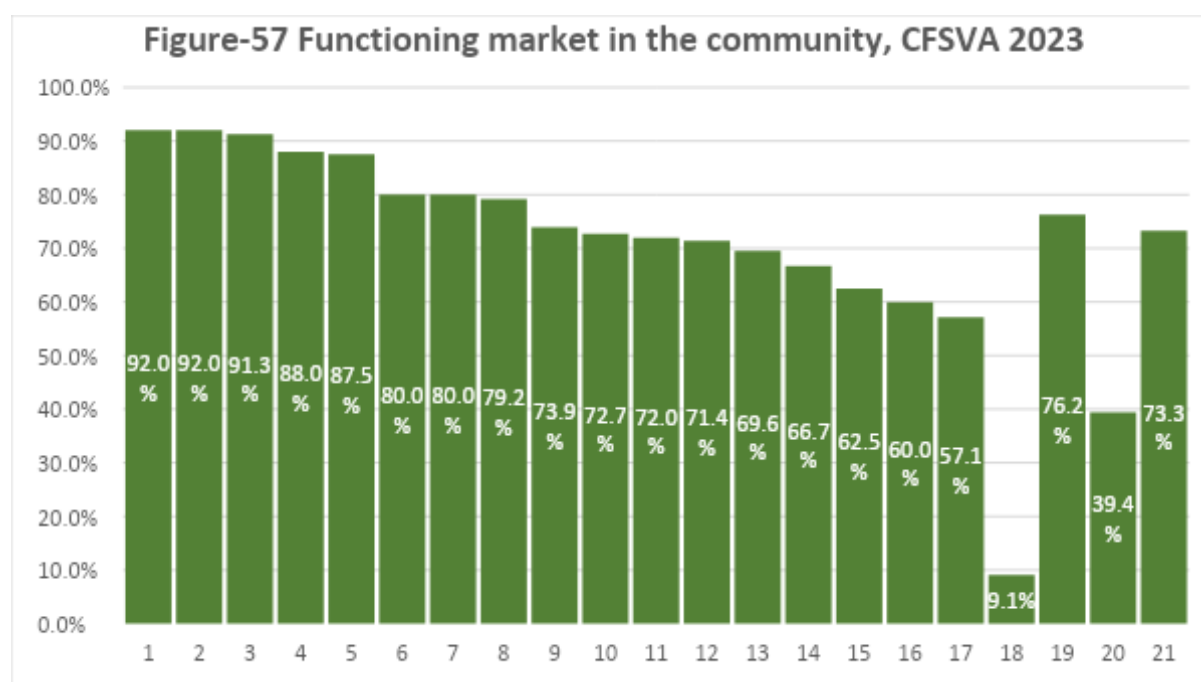
We can easily conclude that farmers sell their products to get cash for meeting other requirements irrespective of their consumption need for the year. In most cases, the farmers receive cash in advance of getting things on credit and then soon after harvest sell the products to return the loan. The majority of them start buying the same food from the market even at a higher price. That's why we witnessed a higher percentage of households buying cereals from the market.

Farmers passing through the stress period during the year, especially between the 2 major seasons. According to the CFSVA 2023, the major stress period where farmers have inadequate stock to refill the gaps or meet the needs is from September to November. The 2nd stress period is April where

limited food is available at home. The stress level is high in rural areas compared to urban as urban residents are heavily dependent on markets.

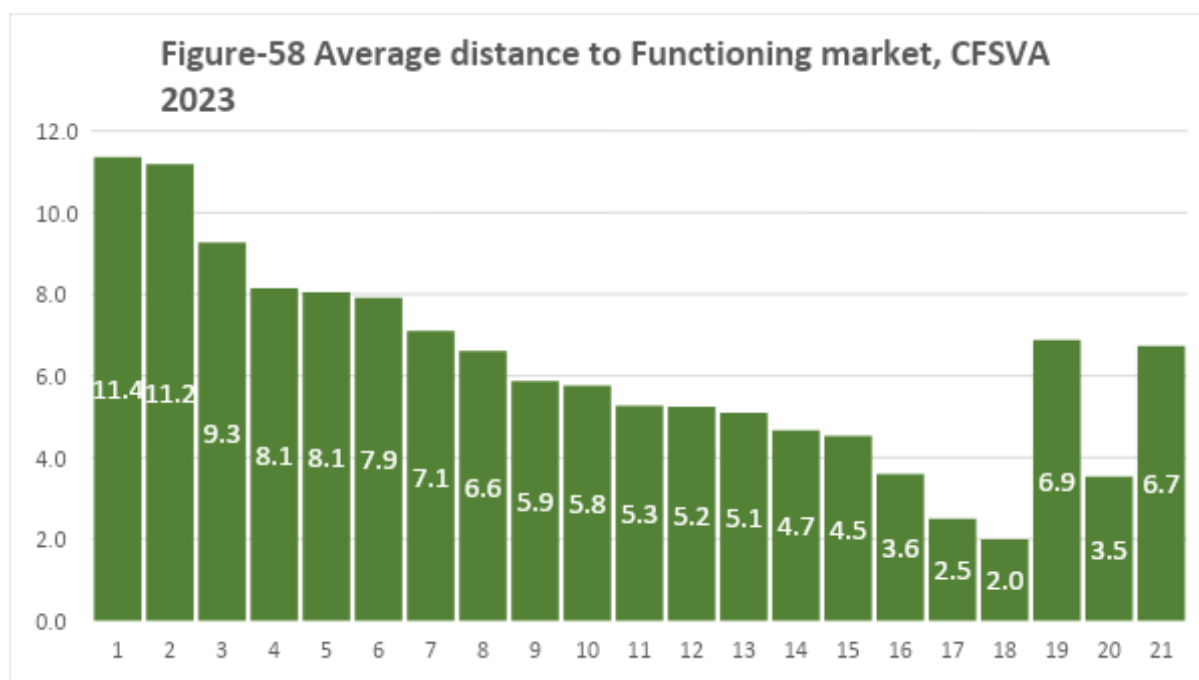
3. Access to markets

Market is a place for buying and selling products produced by farmers and other items on need. Access to a functional market plays a significant role in the food security of households. It is important both for the sale of products by farmers as well as for consumers to buy items of daily need. In the absence of markets, farmers heavily rely on the middlemen to buy the products at a much lower price. Many farmers pay a huge amount of money on the transportation of produce to the markets far away from them.



The CFSVA 2023 found that on average, 73.3 percent of communities have no functional market within their villages. The highest percentage of communities that have no functional market are in Mwaro and Ngozi both at 92 percent, followed by Muramvya at 91.3 percent, Bururi 88 percent and Gitega at 87.5 percent. Majority of these communities travel to a temporary market held once in a week. Households have to buy their basic needs items for at least one week. They also sell their products in those temporary markets, but bulk produce is sent to urban towns for sale.

Communities with no functioning market travels on average 6.7 km to reach a market. People mostly travel by foot, bike and some by car/bus. The highest average distance was reported in Bururi at 11.4 kms, followed by Rutana at 11.2 kms, Rumonge at 9.3 kms and Cankuzo and Kayanza both at 8.1 kms. Communities in Bujumbura Mairie have the lowest distance at 2 kms to functioning market.

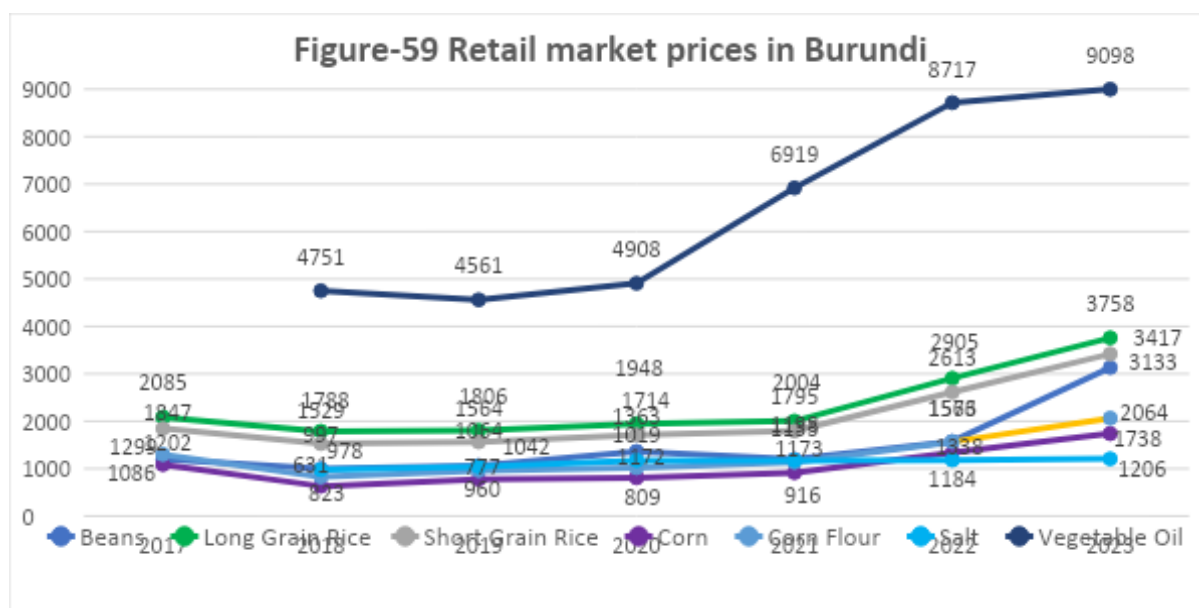


The people have to pay for the transportation to buy food or non-food items from the market. It lead to reduce the purchasing capacity of the community members, especially of poor people and compel them to buy cheaper and/or less food. Similarly, the transport cost reduces the income level of the farmers while selling their products.

According to the community members, majority of the households travel to temporary markets that require a considerable time and sometimes the whole day to return home with purchases. The travel to markets, price hike, no storage facilities at the market as well as at home and non-availability of certain food items in the markets are some of the serious problems for them. Some of the women producers cannot find a place to sell their products in the market.

4. Market price trend

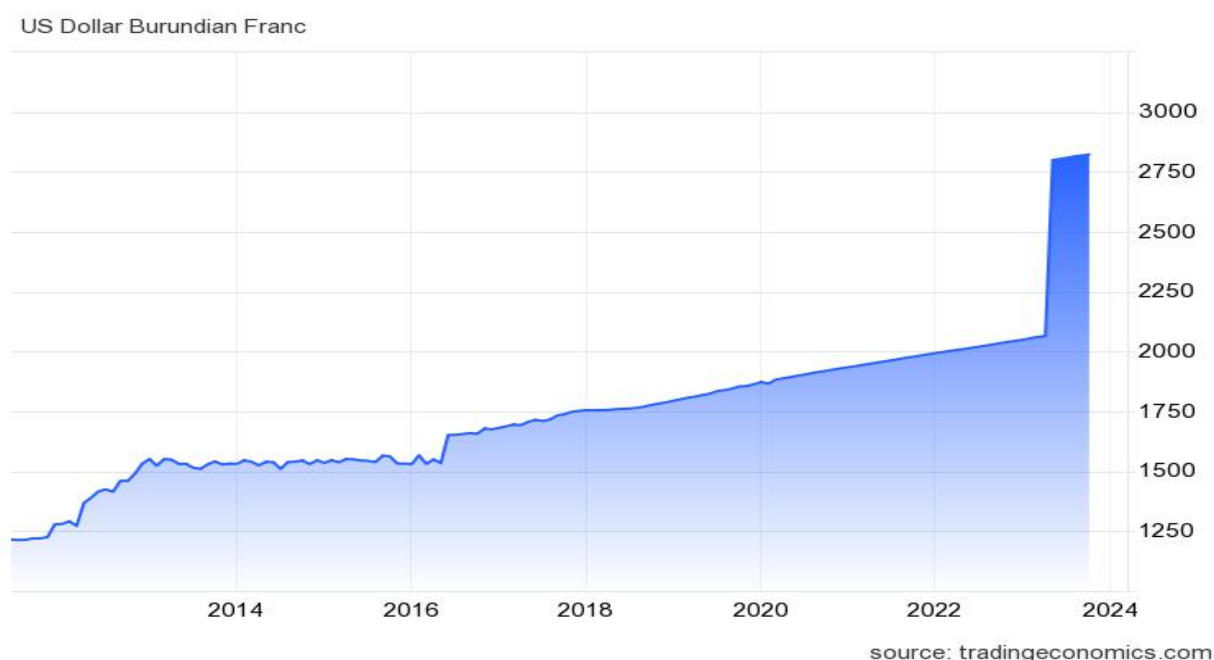
In Burundi the prices of essential food items increased over time. Since 2017 the prices of common beans increased by 161 percent in March 2023 (from 1202 to 3133 BIF per kg). The prices of long grain rice jumped by 80 percent while short grain by 8 percent during the same period. The price of maize increased by 60 percent during 2023 compared to 2017. Vegetable oil prices increased by 92 percent from 2018 to 2023. The significant increase in the market prices has impacted the purchasing power of the common people especially the urban population and vulnerable groups in the rural areas including off-farm families and others.



Source: mVAM, WFP

The exchange rate plays a significant role in the market prices of imported goods and consequently affect local production with impact the prices in local markets. In Burundi the USD to BIF exchange rate fluctuated over time since year 2011 and went sharply upward in 2023. The BIF is depreciated by 128 percent against USD from June 2011 to October 2023, while it devalued by 105 percent since June 2014 (CFSVA 2014). The BIF depreciation affected the prices of imported items including food items like rice, oil, processed food and non-food items. Without increasing income, the people have to buy less or go for cheaper items and food in the case of price hike.

Figure- 60 Exchange rate USD to BIF from 2011 to October 2023



5. Market Functionality Index (MFI)

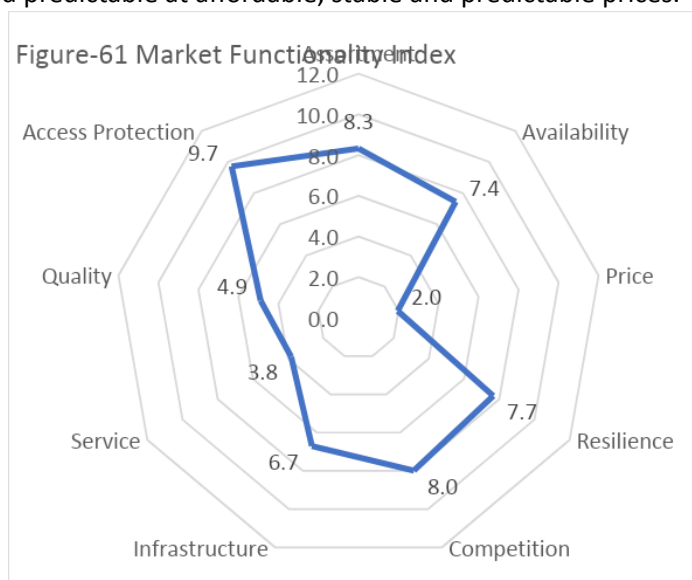
The MFI determine the functionality of market systems (cereals, non-cereal foods, and non-food items) in the country, with a focus on main food commodities, to inform the design and

implementation of assistance programmes in the next 4 years. It provides recommendations on the most appropriate assistance modality regarding food assistance (cash vs. In-kind) for selected areas (i.e., identify markets with higher functionality that are generally better prepared for cash-based interventions than less functional ones).

A market function well if:

- ☐ the features influencing the behaviour of buyers and sellers are stable and predictable,
- ☐ the interactions between sellers, and between sellers and buyers are transparent, and
- ☐ supplies are sufficient, regular and predictable at affordable, stable and predictable prices.

During the CFSVA 2023 market survey, the MFI showed that at the national level markets in both rural and urban setups were generally functional across the provinces covered the 6 dimensions scoring above 6 points. The dimensions on access and protection (9.7), availability (7.4), resilience (7.7), assortment (8.3), competition (8) and infrastructure (6.7) scored the highest while service (3.8) and prices (2) scored the lowest. This showed that assessed markets lacked price stability, quality and service even in more developed markets.



The average national score for assortment is 8.3 and ranged from 8 in Kayanza province to 10 in Gitega and Muramvya. The national average score for availability is 7.4 which showed that generally commodities were available across most of the markets. The result showed that sampled markets in Mwaro and Muramvya reported the lowest score on availability at 5.8 on average. Due to the lean season the supply to markets were minimum during the survey period.

The national score for price is 2, which shows that prices are not uniform across all the markets and fluctuate. The highest score was reported in Gitega at 4.2 followed by Kayanza at 3.3 and Cankuzo and Kirundo at 2.9 each. The lowest score was reported 0 in Bubanza, Bujumbura Rural, Muramvya and Rutana. The resilience score was 7.7 on average, while the highest recorded 8.5 in Rutana, followed by Gitega at 8.3 and Karusi at 7.9. The lowest resilience score was 6.3 in Mwaro, Rumonge and Bubanza.

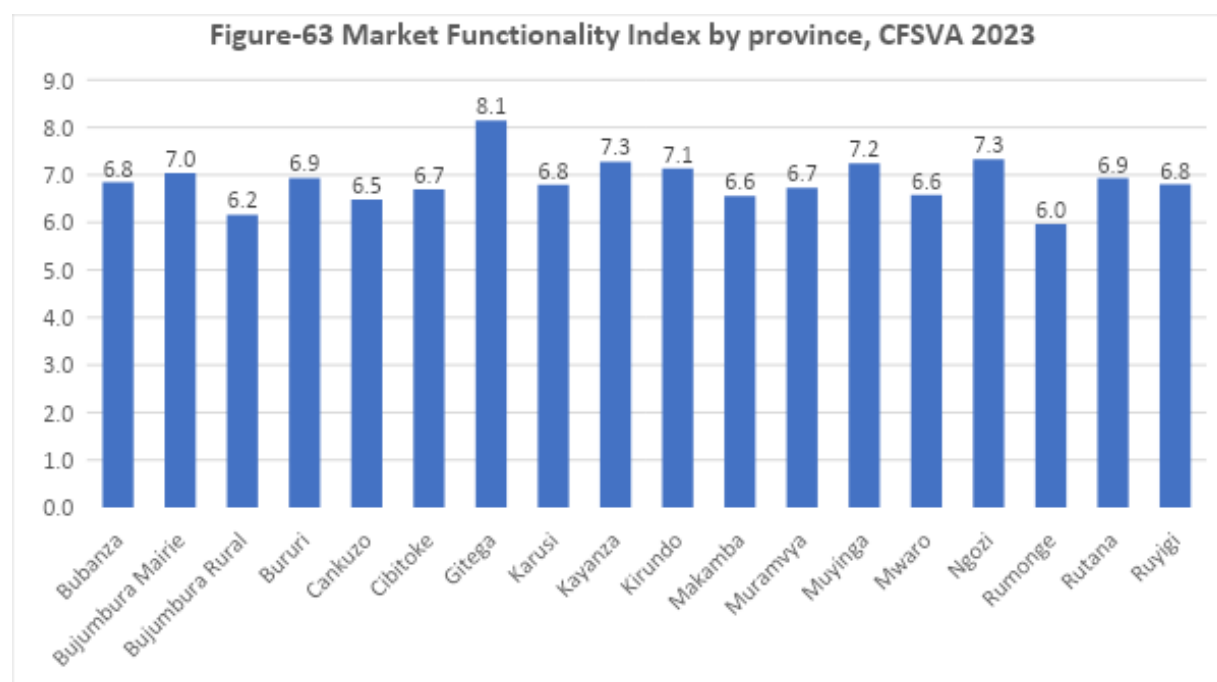
Most of the markets are competitive in the country as the competition score ranges between 7.5 and 10. All the provinces except Cankuzo have score above 8. Most of the traders in rural areas operate from temporary or weak structures with the majority in poor to medium state while some required minor maintenance issues, therefore for infrastructure features some provinces scored low like Bujumbura Rural at 3.6 and Cankuzo at 6.1. The highest score was 10 in Cibitoke, Gitega and Kayanza. Service has a poor score of 3.8 at the national level. Among provinces, the score was ranged between 3.3 and 5. Many shopkeepers didn't display prices for each commodity, receipts were not given and other issues.

Quality of items was scored 4.9 on average, reasonably poor. It was highest at 7.5 in Gitega, followed by 6.3 in Muramvya, Bujumbura Mairie, Bubanza and Kirundo. The lowest score was shown in Bujumbura Rural, Cibitoke, Mwaro and Rumonge at 3.8 each. Access and protection score on average, is shown quite high at 9.7. All the provinces score ranged between 9.2 and 10. It means that

majority of markets were accessible to buyers and sellers and there were no serious protection issues in accessing markets.

Figure-62 Markets functionality at province level, CFSVA 2023

The MFI at the national level scored 6.5. The highest score was recorded in Gitega at 8.1, followed by Kayanza and Ngozi at 7.3 each and Muyinga at 7.2. In general, the MFI is feasible for cash programme but the price fluctuation may restrict it in certain markets due to short of supply.

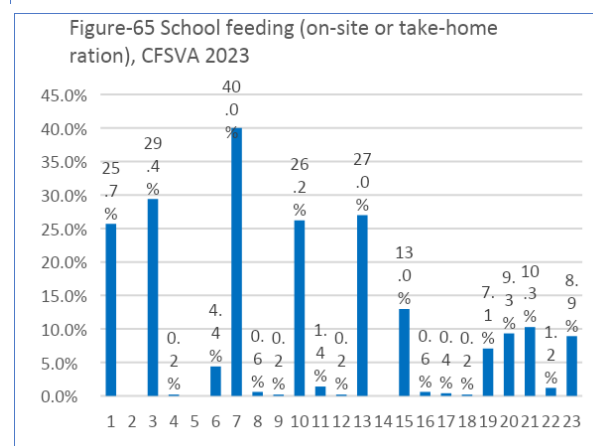
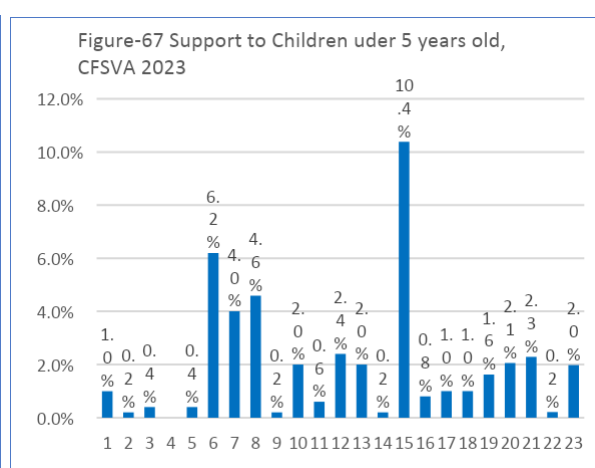
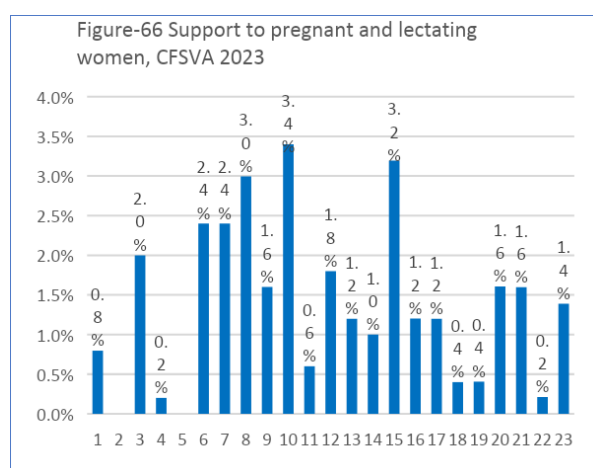
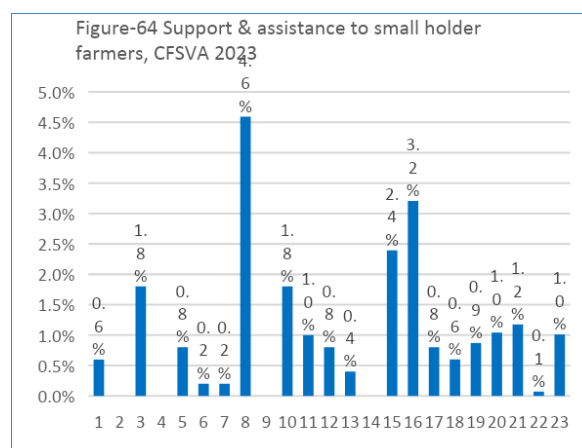


6. Assistance/support to households

Because of various disasters including COVID-19, drought and floods, several support programmes have been operational in Burundi in order to mitigate the impact of these disasters and help in improving access to food and consequently the food security of the people. Among these are: the support to small holder farmers benefited 1 percent of the households in Burundi, school feeding programme benefited 8.9 percent of the households, food assistance for pregnant and lactating women (PLW) received by around 1.4 percent, food assistance for children under-5 served 2 percent of households, general food distribution (in case of emergency) reached to around 2 percent and non-food assistance to 5.3 percent of households.

The majority of the beneficiaries of the school feeding programme (SFP) were found in Gitega (40 percent), followed by Muyinga (27 percent) and Kirundo (26.2 percent). Support to small grower farmers was reported the highest in Karusi at 4.6 percent, followed by Rumonge at 3.2 percent and Ngozi at 2.4 percent. The food assistance for PLW was reported by a higher percentage in Kirundo (3.4 percent) and followed by Ngozi (3.2 percent). Food assistance for children under-5 was received by a higher percentage in Ngozi (10.4 percent) and followed by Cibitoke (6.2 percent). The general food distribution benefited a higher percentage of households in Makamba (14 percent), followed by Ngozi (11.6 percent) and Cankuzo (2.4 percent).

The non-food items were received by a higher percentage of households in Rumonge (19.2 percent), followed by Karusi (19 percent) and Ngozi (18.8 percent).



Assistance to vulnerable households is provided by several institutions and groups. Major assistance providers include government, UN agencies including WFP, NGOs, Faith-based organizations, and charity. Government is the major assistance provider in the country. Regarding general food distribution, the Government of Burundi has supported 77.7 percent of the households who received the food, followed by NGOs at 10.1 percent, UN agencies at 6.9 percent and WFP at 4.3 percent. WFP has assisted 37.6 percent of households through school feeding programme, 16.7 percent for PLWs, 10.1 percent in food assistance for children under-5 and 5.2 percent of food assistance for small grower farmers.

Table-14 Sources of assistance in Burundi, CFSVA 2023

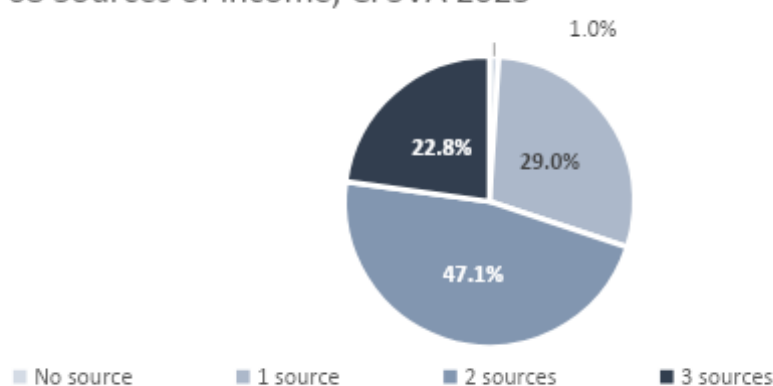
Type of assistance	Government	NGOs	Other UN agencies	Religious denomination	World Food Program (WFP)
Small holders farmers	31.3%	18.8%	41.7%	3.1%	5.2%
School feeding programm	59.2%	0.5%	2.5%	0.2%	37.6%
Pregnant and lectating women	71.2%	5.3%	5.3%	1.5%	16.7%
Children under 5 years old	74.5%	6.4%	9.0%		10.1%
General food distribution	77.7%	10.1%	6.9%	1.1%	4.3%
Non-food assistance	74.9%	12.3%	9.5%	2.4%	1.0%

7. Livelihoods

Livelihood is defined as a set of activities essential to everyday life that are conducted over one's life span. Such activities could include securing water, food, fodder, medicine, shelter, clothing and other basic needs. An individual's livelihood involves the capacity to acquire aforementioned necessities in order to satisfy the basic needs of himself. In Burundi, the livelihood pattern is different in rural and urban areas. In rural areas, the predominant livelihood activity is related to agricultural sector, where most rural households directly or indirectly rely on agricultural related activities to meet their food and non-food needs. In urban areas, the major livelihood activities are salary and business based.

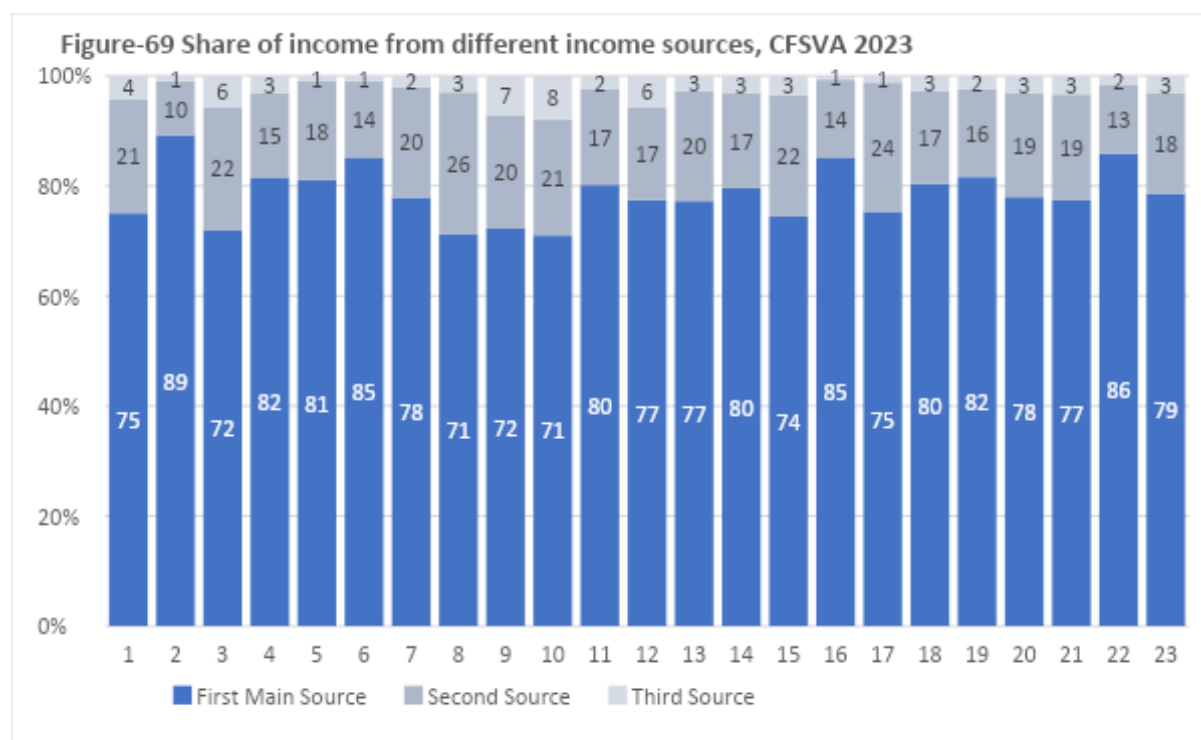
In order to know the status of the work/job of the household members, the CFSVA 2023 enquired about the work they have done during the last 12 months and sources of earning for a living. The result shows that 1 percent of household's did not work at all during the year. Among all households, 29 percent have also one source of income to meet their expenses, while 47.1 percent have 2 sources and only 22.8 percent have 3 sources of income. The more the income sources the less the risk to be highly vulnerable. The highest percentage of unemployed was among female headed households at 2.4 percent against rural at 0.7 percent and in urban areas at 3.3 percent against rural at 0.6 percent. A worrisome figure is the higher percentage of such people in urban areas compared to rural contrary to the common understanding that people in rural areas have more tendency of being unemployed.

Figure-68 Sources of income, CFSVA 2023



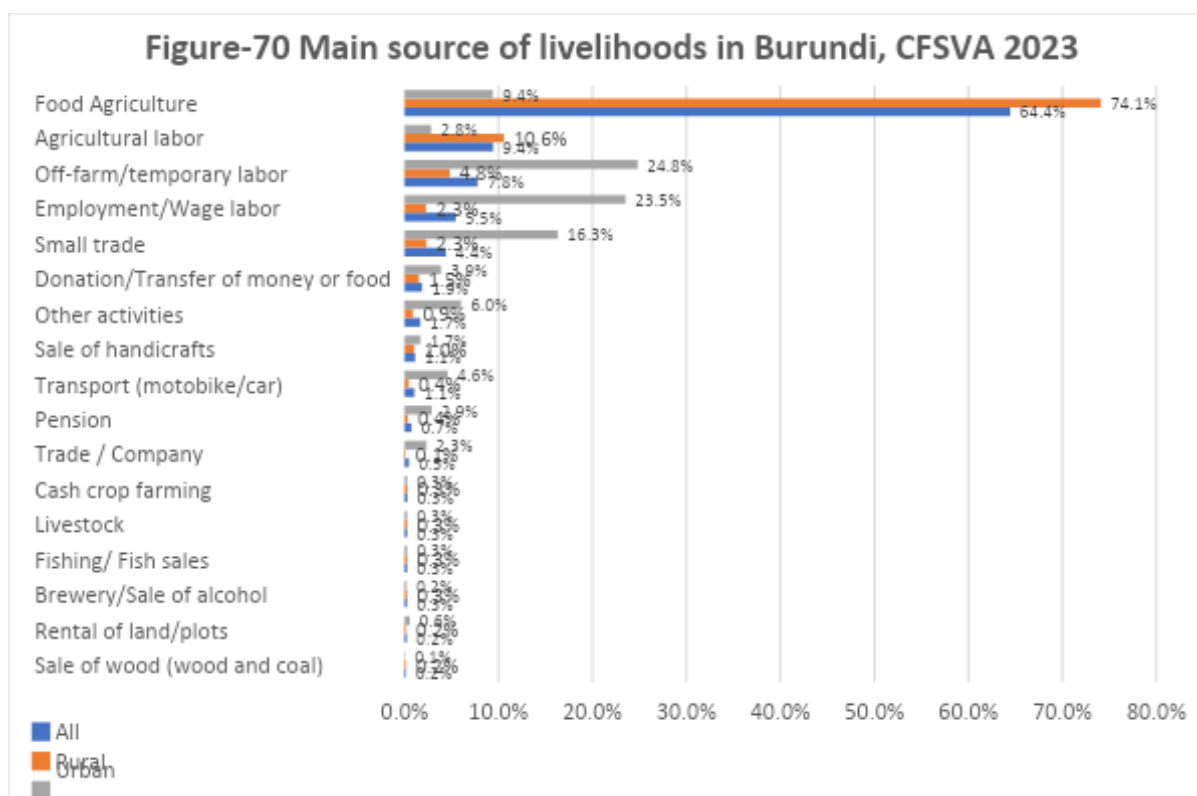
As earlier mentioned, that households have multiple tasks to earn livelihoods. The CFSVA 2023 analysed the contribution of these different tasks. The major share on income comes from the first income source as on average it contributes to 79 percent of the total income of the households. In urban areas the contribution of 1st income source is 86 percent compared to rural at 77 percent. Similarly, female headed households get 82 percent of their income from first source while 78

percent by male headed. The highest percentage of income from first source was reported in Bujumbura Mairie at 89 percent, followed by Cibitoke and Rumonge both at 85 percent and Bururi at 82 percent.



The contribution of 2nd source to total household income is only 18 percent on average, 13 percent in urban and 19 percent in rural. The female headed households have less share of 2nd income source compared to male headed (16 percent and 19 percent respectively). Among provinces, the highest percentage of income from 2nd source was reported in Karusi at 26 percent and the lowest in Bujumbura Mairie at 10 percent. The contribution of 3rd source in the total income portfolio of the household is only 3 percent on average, while it is less than 2 percent in urban areas and 2 percent for female headed households. This shows that if any shock attacks the first source of income the households will not be able to get out of it.

Types of Livelihoods are mostly area-specific and based on the raw materials, opportunity, resources, human capacity and demand. Thus, the livelihood types vary between rural and urban areas. In Burundi, the production of food and agriculture is the livelihood adopted by majority of the households at 64.5 percent, mostly adopted in rural areas by 74.1 percent. On the other hand, off-farm labour is the most common livelihood in urban areas at 24.8 percent followed by employment/wage labour at 23.5 percent. Small or petty trade is the 3rd major livelihood in urban areas adopted by 16.3 percent. Transport contributes to livelihoods of 4.6 percent of households, while trade/business 2.3 percent. In rural areas the 2nd major livelihood is the agriculture labour adopted by 10.6 percent of households followed by off-farm temporary labour at 4.8 percent and employment and petty trade by 2.3 percent each.



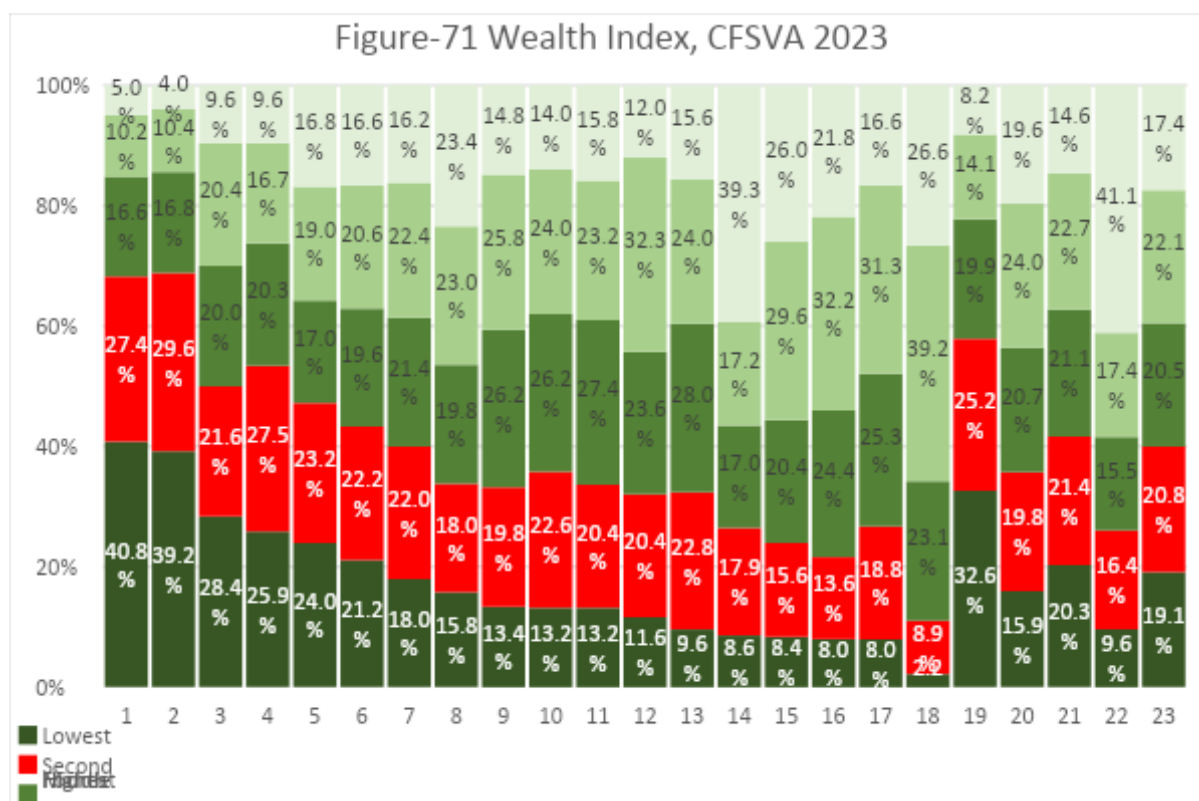
Females after farming and working as agriculture labour, a significant percentage survive on donations and assistance (5.5 percent). However, a great percentage at 5.9 percent are involved in petty trade, selling fruits and vegetables in streets and on road.

8. Wealth Index-poverty²²

The wealth index is the composite indicator of assets both productive and non-productive. Assets determine the economic status of a household as poor households have limited and cheaper assets while it grows with the increase in income. Several surveys have attempted to estimate the percentage of poor in Burundi through various methods. The CFSVA 2023 estimated the percentage of poor (aggregate of poorest and poor) as 39.3 percent. The assets poverty rate in rural areas is 41.7 percent against urban at 26 percent. The poverty level among female headed households is higher at 57.8 percent compared to male headed at 35.7 percent.

Among provinces, Ruyigi has the highest percentage of assets poor (68.8 percent), followed by Cibitoke (68.2 percent) and Bubanza (53.4 percent). The lowest percentage of assets poor is in Bururi (11.1 percent), followed by Bujumbura rural (21.6 percent) and Makamba (24 percent).

²² The index is constructed through principal component analysis. Firstly, indicators common to urban and rural areas are used to create respective common factor scores (36 values) for each set of assets/services/facilities. Secondly, the area specific factor scores are combined to generate a national level wealth index. Finally, the index is divided into five different quintiles (lowest to highest) to determine the level of wealth of each household. Households falling into the lowest wealth quintile is the poorest in terms of their assets, services, and facilities, while those in the highest quintile are better off.

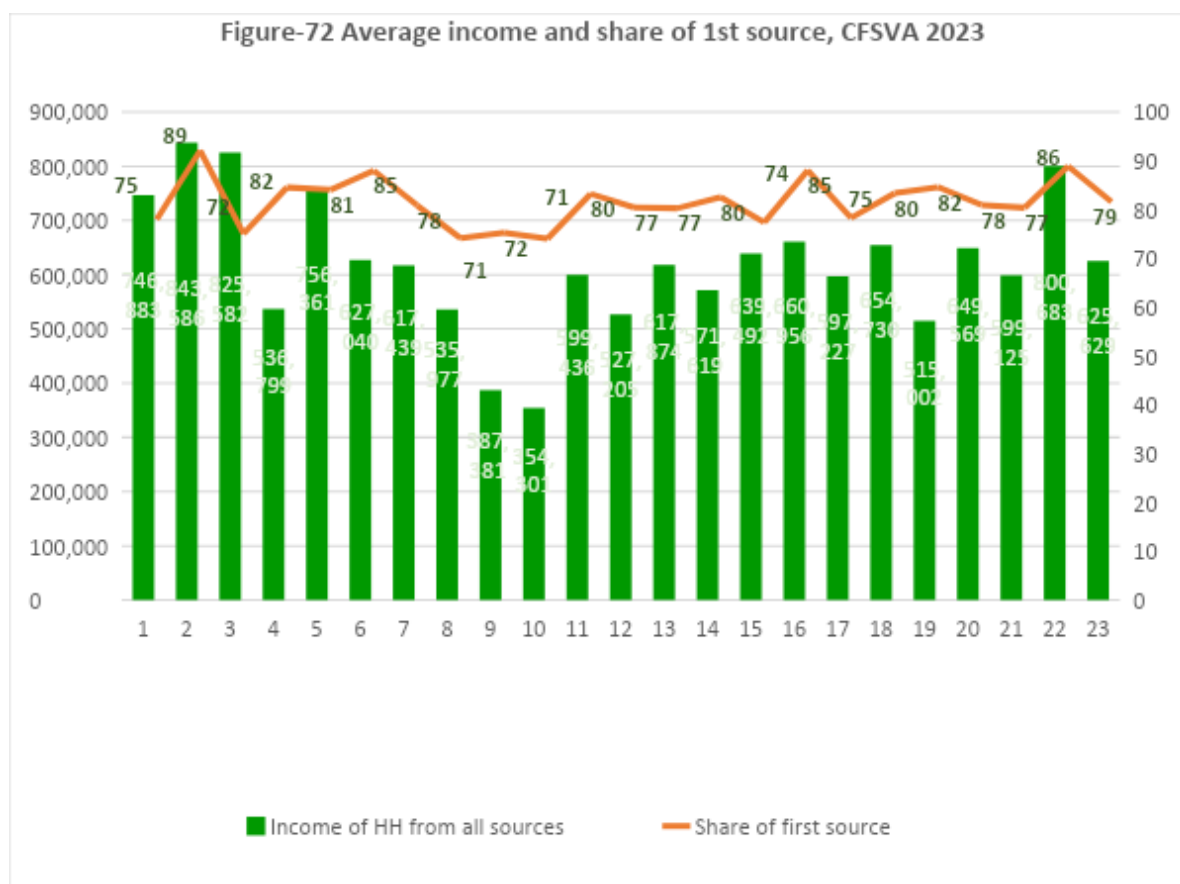


According to community (FGDs) analysis, on average, the poor account for 37 percent of the total population who cannot meet their essential food needs (37 percent in rural and 27 percent in urban). According to them the rate of poverty has increased over the past few years due to low production, price hike and inadequate access to markets by farmers. Due to late arrival of rains, farmers paid a great cost of sowing with poor germination and losing the crop production to a great extent. The cost of living also gone up with price increase of essential items including fuel, which sharply increased in recent months. It also affected the labours working in agriculture and off-farm with decline in job opportunities and increase in prices.

9. Income of the households

CFSVA 2023 has tried to estimate the annual income of the households through recall method. The income estimates are indicative and may not replace the detailed income estimates done by other agencies. The average annual income per household from all sources was estimated at BIF 625,629, BIF 800,683 in urban and BIF 599,125 in rural areas. The income of female-headed households was reported lower than male-headed at BIF 515,002 against BIF 649,569 per household. The lowest per household income was found in Kirundo province at BIF 354,301, followed by Kayanza at BIF 387,381. The highest income was estimated in Bujumbura mairie at BIF 843,586 per household, followed by Bujumbura Rural at BIF 825,582.

It has been witnessed that in certain cases the lowest share of first income source is resulted in the lower overall income of the households. This implies that low-income households adopt multiple sources, like farming, agriculture labour and livestock rearing but mostly subsistence sources. The land holding is a key to income by majority of people in rural areas, where majority survive on small piece of land with poor farming. On other hand, the first main source is quite important for the households to keep them alive. In case of any shock or risk to the main income source, the households will have no option or coping mechanism to avoid food insecurity.

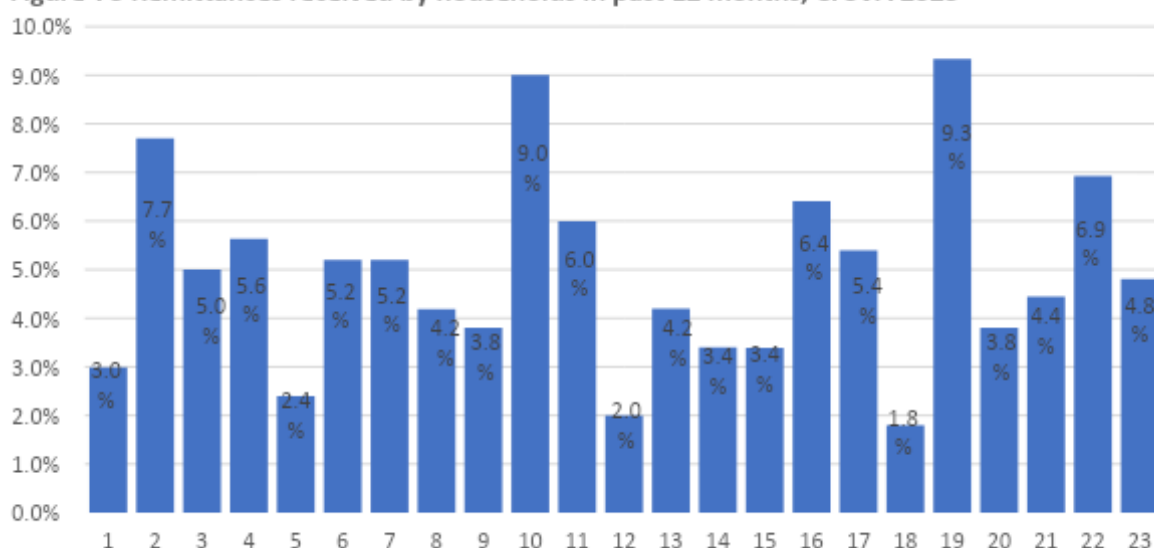


Source: CFSVA 2023 estimates

10. Remittances

On average, 4.8 percent of the households in the country has received remittances in the past 12 months. The highest percentage of households received remittances was in Kirundo (9 percent) and followed by Bujumbura Mairie (7.7 percent). Female-headed households were the major beneficiaries of remittances (9.3 percent) compared to male-headed (3.8 percent). Remittances are received by a higher percentage of households in urban compared to rural areas.

Figure-73 Remittances received by households in past 12 months, CFSVA 2023



A great majority of the households reported no change in remittances during the past 12 months. Although, 60 percent of the households started receiving remittances during COVID-19, among them 56.5 percent of households reported no change in remittances while 2.7 percent reported a decline. Among the households whose remittances declined the highest percentage is found in Bubanza (16.9 percent), followed by Bujumbura Mairie (7.7 percent) and Kirundo and Bururi (5.2 percent each).

Although the decline in remittances is not reported by a great majority both in rural as well as urban, the percentage of such households is higher in urban compared to rural. Moreover, the female-headed households are in lower percentage whose remittances declined compared to males.

Table-15 Increase or decrease in the remittances received compared to the period during COVID-19, CFSVA 2023

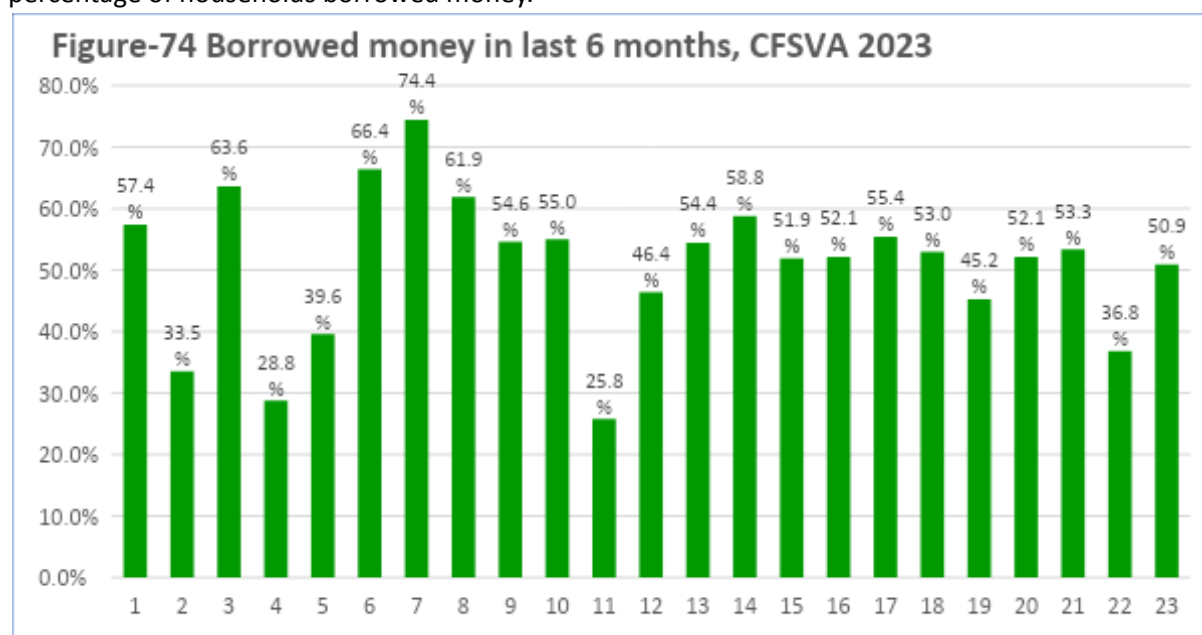
		Increased	Decreased	No Change	No remittances during COVID19
Province	Bubanza	1.8%	16.9%	44.2%	37.1%
	Bujumbura mairie	3.9%	7.7%	47.1%	41.3%
	Bujumbura rural	0.0%	0.0%	29.8%	70.2%
	Bururi	1.0%	5.2%	64.6%	29.2%
	Cankuzo	0.2%	0.2%	58.4%	41.2%
	Cibitoke	0.2%	0.6%	76.8%	22.4%
	Gitega	1.0%	0.2%	84.2%	14.6%
	Karusi	0.0%	1.2%	25.3%	73.5%
	Kayanza	0.6%	0.8%	52.8%	45.8%
	Kirundo	0.2%	5.2%	84.4%	10.2%
	Makamba	0.0%	1.4%	60.2%	38.4%
	Muramvya	0.0%	1.0%	85.8%	13.2%
	Muyinga	0.0%	1.4%	58.6%	40.0%
	Mwaro	0.4%	0.2%	62.0%	37.4%
	Ngozi	0.8%	0.2%	63.9%	35.1%
	Rumonge	0.4%	1.0%	57.9%	40.7%

	Rutana	0.8%	0.4%	1.8%	97.0%
	Ruyigi	0.0%	0.2%	68.6%	31.2%
Sex of HH head	Female	1.2%	2.1%	60.0%	36.7%
	Male	0.7%	2.8%	55.7%	40.7%
Area category:	Rural	0.4%	2.1%	57.8%	39.8%
	Urban	3.1%	6.4%	49.2%	41.2%
Total		0.8%	2.7%	56.5%	40.0%

11. Borrowing money

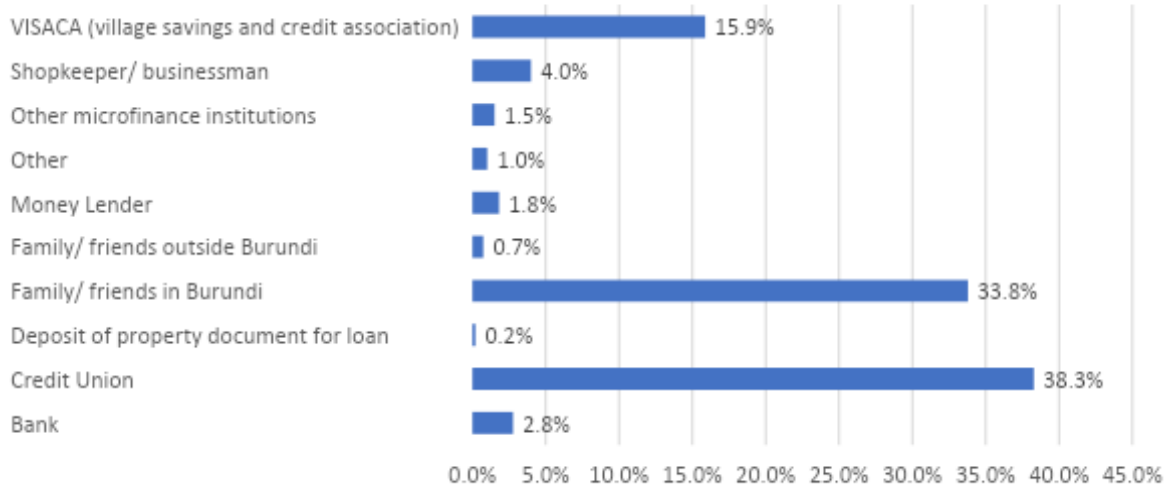
In a poor economy and subsistence livelihoods, borrowing money is a common practice. Community members normally borrow money to meet their daily needs during stress, especially food. Farmers mostly borrow money till the harvest of crops to return or monthly income in case of labour or wage. Borrowing money is one of the common coping strategies during economic stress. According to the CFSVA 2023, in Burundi, 50.9 percent of households has borrowed money during the last 6 months. In rural areas the percentage of households borrowed money is much higher at 53.3 percent compared to urban at 36.8 percent. Among provinces, Gitega has the highest percentage (74.4 percent) of households who borrowed money during the last 6 months, followed by Cibitoke (66.4 percent) and Bujumbura rural (63.6 percent).

The analysis shows that people who belong to various livelihood groups have borrowed money, however, in rural areas and especially areas with great majority of farmers reported a higher percentage of households borrowed money.



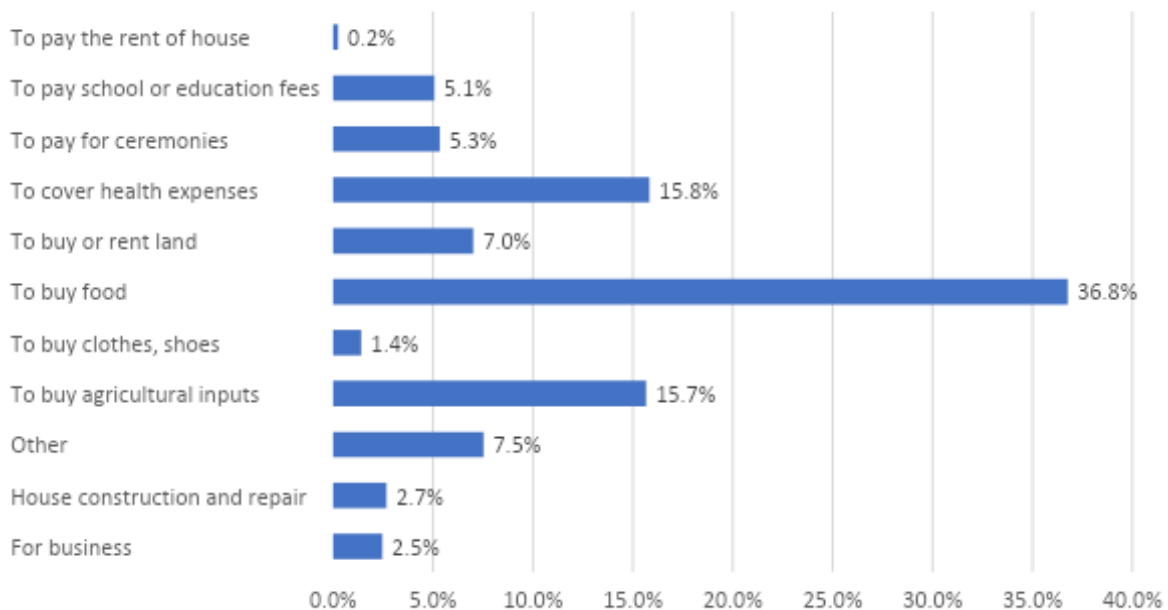
Household borrowed money from different sources, however, Credit Union was the major source of borrowing money as reported by 38.3 percent of the loanees. The 2nd major source of loans was the family and friends as reported by 33.8 percent, followed by Village Savings and Credit Association (VISACA) where 15.9 percent of households borrowed money from, and shopkeepers/businessmen used by 4 percent. People have also used other sources to borrow money like money lenders and other microfinance institutions who lend money to households.

Figure- 75 Sources of loan, CFSVA 2023



According to the CFSVA 2023, several reasons have been mentioned by the households for borrowing money. The first and pressing need reported by 36.8 percent of the households was to buy food. Food is always the first priority of the households during stress and shortage of resources. The 2nd major reason of borrowing money is to cover health expenses reported by 15.8 percent, 3rd reason to buy agriculture inputs like seed, fertilizer and tools mentioned by 15.7 percent. Around 7 percent reported rent or buy land, 5.3 percent for ceremonies, and 5.1 percent to pay school fees. Surprisingly, the percentage of households borrowing money for food was higher in urban at 41.8 percent compared to rural as 36.2 percent. The highest percentage of households borrowed money for food was reported in Kirundo (65.8 percent), followed by Bubanza (51.4 percent) and Bujumbura Mairie (45.4 percent). The percentage of borrowers for food was higher in female-headed households than male-headed (40.4 VS 36.1 percent).

Figure- 76 Reasons of loan, CFSVA 2023



12. Education

Education is an essential aspect of human life and plays a crucial role in shaping individuals and societies. It provides individuals with the knowledge and skills they need to succeed in life and contribute to their communities. Education also helps promote social mobility and reduce inequality by providing opportunities for people to improve their economic status. A child's right to education entails the right to learn. Yet, for too many children across the globe, schooling does not lead to learning.

Over 600 million children and adolescents worldwide are unable to attain minimum proficiency levels in reading and mathematics, even though two thirds of them are in school²³. Poverty remains one of the most persistent barriers. Children living through economic fragility, political instability, conflict or natural disaster are more likely to be cut off from schooling and those with disabilities, or from ethnic minorities. In some countries, education opportunities for girls remain severely limited.

According to the CFSVA 2023, a great majority of the children (73.5 percent) of 5-17 years of age are going to school regularly, however, a significant percentage, i.e., 26.5 percent of them are dropped out of school. The dropout rate is higher in female headed households compared to male headed. The highest percentage of such out of school children are found in Karusi at 51 percent, followed by Cibitoke and Ruyigi both at 60.1 percent and Kirundo at 60.5 percent. These are the provinces with low children participation rate in primary education.

The dropout rate is much higher in rural areas at 28 percent compared to urban at 14.4 percent. Among the drop out children, 91.4 percent never returned to school. The highest percentage of such children is over 99 percent in Getiga, Bujumbura rural and Muramvya.

Table-16 Schooling and drop out by children 5-17 years, CFSVA 2023

Category	Area	Children attended school regularly in last 6 months			Children did not return to school		
		Female	Male	Total	Female	Male	Total
Province	Bubanza	72.9%	66.4%	69.8%	95.5%	95.6%	95.5%
	Bujumbura mairie	83.0%	92.8%	87.8%	92.0%	92.1%	92.1%
	Bujumbura rural	81.9%	79.1%	80.5%	99.0%	99.1%	99.1%
	Bururi	93.1%	89.0%	90.8%	95.7%	97.8%	97.1%
	Cankuzo	70.5%	68.3%	69.4%	98.1%	98.1%	98.1%
	Cibitoke	60.8%	59.5%	60.1%	91.4%	93.2%	92.2%
	Gitega	80.7%	82.4%	81.6%	98.6%	100.0%	99.3%
	Karusi	50.4%	51.8%	51.0%	77.8%	69.8%	74.0%
	Kayanza	78.8%	74.1%	76.5%	83.5%	90.7%	87.3%
	Kirundo	57.6%	63.8%	60.5%	96.8%	98.4%	97.5%
	Makamba	84.0%	85.2%	84.6%	75.3%	71.2%	73.3%
	Muramvya	84.7%	77.0%	80.7%	100.0%	98.3%	99.0%
	Muyinga	74.1%	70.7%	72.4%	85.1%	91.4%	88.4%
	Mwaro	82.1%	73.0%	77.4%	89.3%	98.3%	94.9%
	Ngozi	65.0%	68.1%	66.5%	89.3%	93.9%	91.5%
	Rumonge	86.1%	83.7%	84.8%	78.0%	81.6%	80.0%

²³ UNICEF

	Rutana	67.2%	63.3%	65.2%	97.2%	97.6%	97.4%
	Ruyigi	57.7%	62.6%	60.1%	97.3%	94.5%	96.0%
Sex of HH head	Female	71.1%	67.4%	69.3%	89.5%	94.0%	91.8%
	Male	74.2%	74.1%	74.2%	91.2%	91.4%	91.3%
Area category:	Rural	72.6%	71.5%	72.0%	90.8%	91.8%	91.3%
	Urban	83.4%	87.9%	85.6%	93.1%	92.2%	92.7%
	Total	73.8%	73.3%	73.5%	90.9%	91.8%	91.4%

There are many reasons for children not going to school. However, the parents of the children were asked about the reasons children not going to school during the CFSVA 2023. According to the parents, the most compelling reason was that they could not pay for the school fee, uniform and books as reported by 22.3 percent. Other reasons were the lack of interest by the children and parents, sickness of child or disability, majority among girls and children supporting the family in farming and other works. Majority of the parents mentioned other reasons like the schools for higher education are far from homes and parents cannot manage to send children and thus discontinue their education.

Table-17 Reasons for the dropout, CFSVA 2023

Gender of child	Type of area	Absent teacher / poor quality	Cannot pay school fees, uniform, textbooks	Cannot pay transport / fare way	Child works for cash or food (e.g. casual work, petty trading)	Child works for household unpaid (e.g. farming, family business)	Domestic household unpaid (e.g. casual work, petty trade, begging)	Early marriage (girl)	No boarding school available	No schools for girls/ female teachers available	Not interested	Other reasons (specify)	Sicknes/ handicap
Female	Rural	0.1 %	22.3 %	0.9 %	0.3 %	1.8 %	0.5%	0.1 %	0.1 %	0.1%	10.9 %	49.5 %	13.6 %
	Urban	0.0 %	33.8 %	2.8 %	0.0 %	2.1 %	5.5%	0.0 %	0.0 %	0.0%	6.9%	37.2 %	11.7 %

Male	Total	0.0 %	23.1 %	1.0 %	0.3 %	1.8 %	0.8%	0.0 %	0.0 %	0.1%	10.6 %	48.7 %	13.4 %
	Rural	0.1 %	21.1 %	0.7 %	0.9 %	0.5 %	0.6%	0.1 %	0.1 %		19.0 %	46.6 %	10.2 %
	Urban	0.0 %	30.1 %	1.0 %	1.9 %	0.0 %	0.0%	0.0 %	0.0 %		11.7 %	43.7 %	11.7 %
	Total	0.1 %	21.5 %	0.7 %	1.0 %	0.5 %	0.6%	0.1 %	0.1 %		18.7 %	46.5 %	10.2 %
Both	Rural	0.1 %	21.7 %	0.8 %	0.6 %	1.1 %	0.6%	0.1 %	0.1 %	0.1%	15.1 %	48.0 %	11.8 %
	Urban	0.0 %	32.3 %	2.0 %	0.8 %	1.2 %	3.2%	0.0 %	0.0 %	0.0%	8.9%	39.9 %	11.7 %
	Total	0.1 %	22.3 %	0.9 %	0.6 %	1.1 %	0.7%	0.1 %	0.1 %	0.0%	14.7 %	47.6 %	11.8 %

CHAPTER 6: Food Utilization

(Health and nutrition)

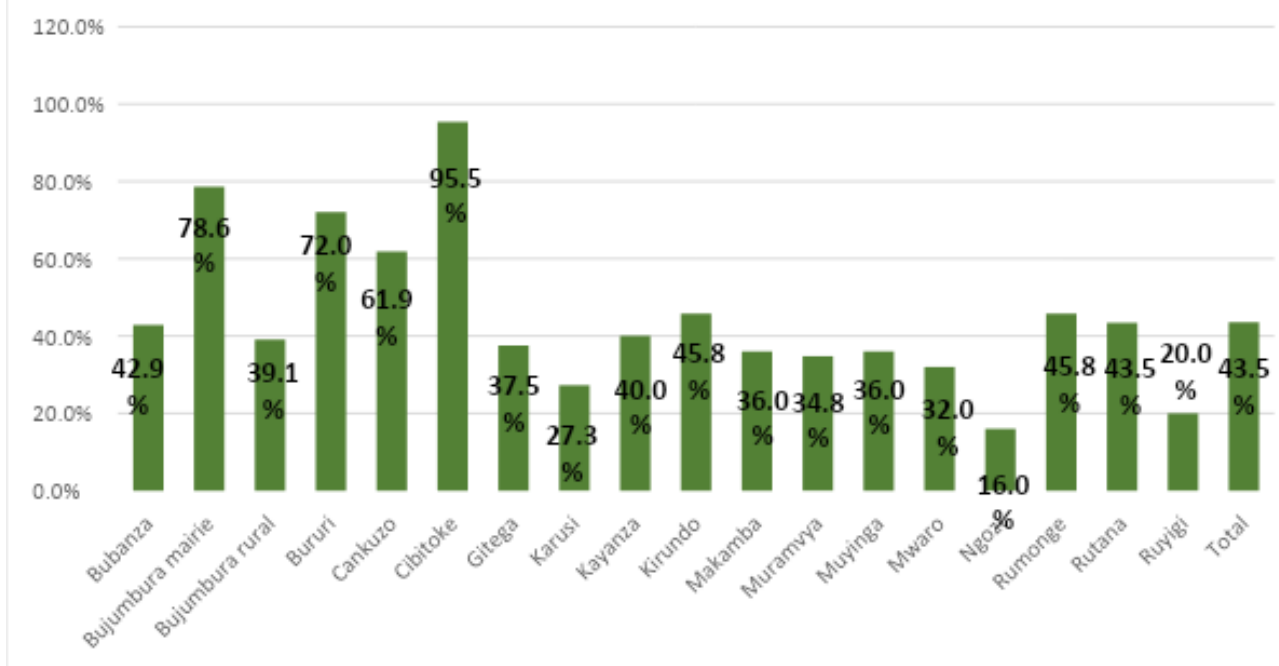
Food utilization is the third pillar in Food Security Framework. Food utilization is the proper biological use of food where a portion of food provides sufficient energy, essential nutrients, hydration and includes adequate sanitation. Effective food utilization depends mainly on the knowledge and practice within the household of food storage and processing techniques, basic principles of nutrition and proper childcare.

1. Health

Access to health is an issue in Burundi, where majority of the rural people have limited awareness about their health and to avail the services. In some cases, the services are not in reach or either beyond their capacity.

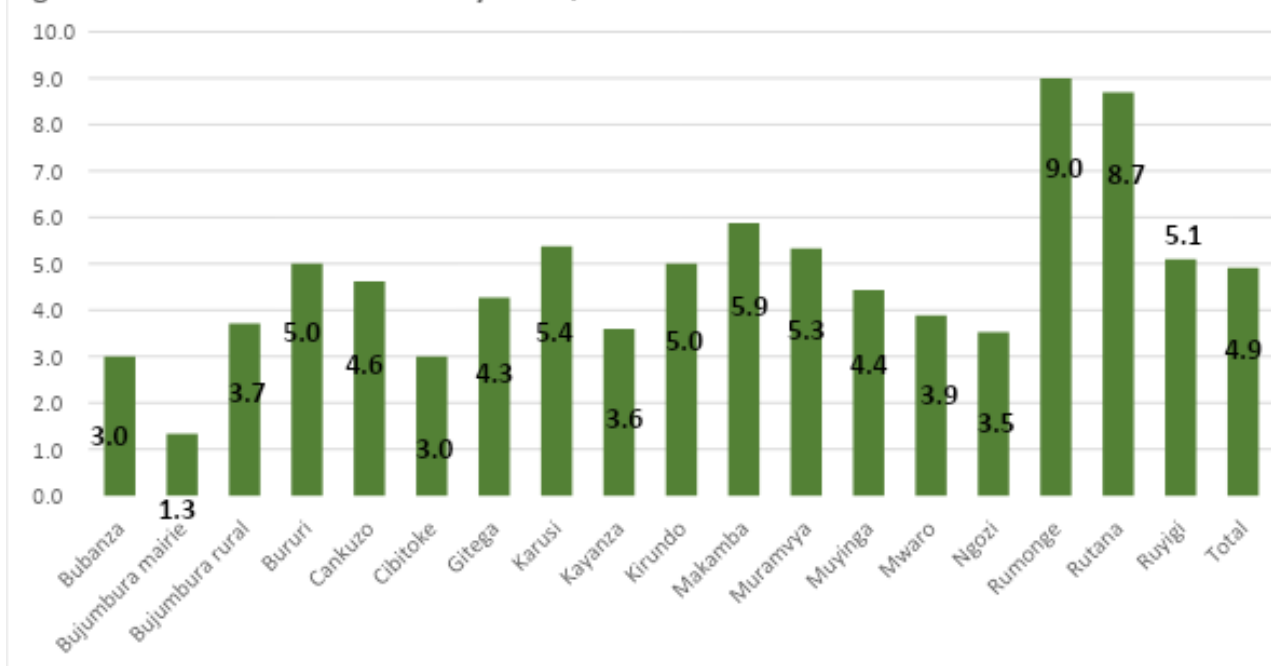
According to CFSVA 2023, only 43.5 percent of communities have health facilities in their respective communities. The highest percentage of communities with health facilities was found in Cibitoke at 95.5 percent while the lowest in Ngozi at 16.0 percent.

Figure -77 Health facility in community, CFSVA 2023



Communities have no health facilities travel a long distance to reach a health facility during illness. On average, they travel around 5 km to reach a health facility. The maximum distance to health facility was reported in Rumonge at 9 km, followed by Rutana at 8.7 km and Makamba at 5.9 km. The lowest distance to health facility was found in Bujumbura Mairie at 1.3 km, followed by Bubanza and Cibitoke at 3 km each and Bujumbura Rural at 3.7 km.

Figure -78 Distance to health facility in Km, CFSVA 2023



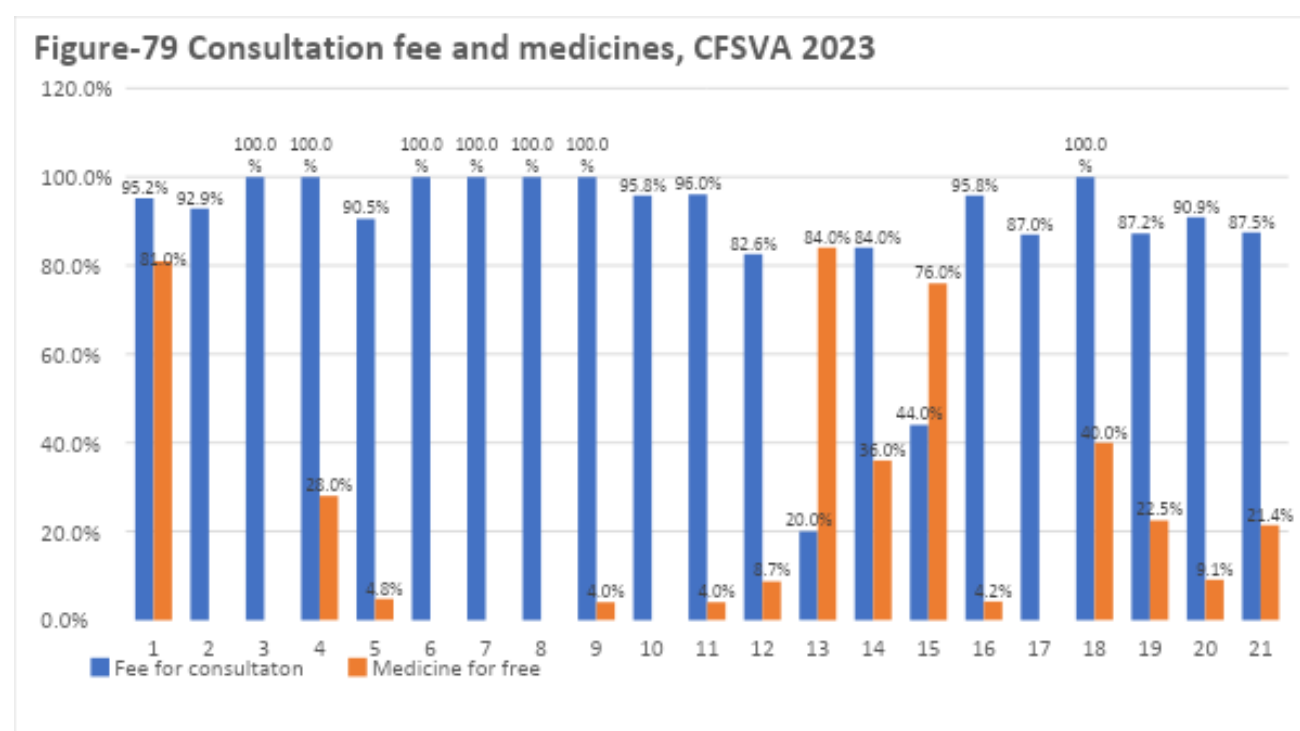
Regarding access to services, 23.8 percent of communities have access to qualified doctors for treatment. The majority of such communities are in Bujumbura Mairie at 64.3 percent, followed by Ruyigi at 56 percent and Muramvya at 43.5 percent. The lowest access to Doctors was found in Musinga at 4 percent, followed by Cibitoke and Karusi at 4.5 percent each and Kirundo at 12.5 percent.

Table-18 Professional staff in health facilities, CFSVA 2023

Categories	Area	Doctor	Nurses	Mid-wive	Traditional Birth Attendant	Others
Province	Bubanza	14.3%	100.0%	14.3%	4.8%	0.0%
	Bujumbura mairie	64.3%	85.7%	71.4%	14.3%	0.0%
	Bujumbura rural	21.7%	100.0%	0.0%	0.0%	0.0%
	Bururi	12.0%	100.0%	12.0%	0.0%	0.0%
	Cankuzo	28.6%	100.0%	100.0%	0.0%	0.0%
	Cibitoke	4.5%	100.0%	40.9%	0.0%	0.0%
	Gitega	25.0%	95.8%	0.0%	0.0%	0.0%
	Karusi	4.5%	100.0%	13.6%	0.0%	0.0%
	Kayanza	40.0%	100.0%	28.0%	4.0%	0.0%
	Kirundo	12.5%	100.0%	8.3%	12.5%	0.0%
	Makamba	28.0%	80.0%	0.0%	0.0%	0.0%
	Muramvya	43.5%	100.0%	52.2%	0.0%	0.0%
	Musinga	4.0%	96.0%	0.0%	0.0%	0.0%
	Mwaro	24.0%	96.0%	32.0%	8.0%	8.0%
	Ngozi	16.0%	100.0%	80.0%	0.0%	0.0%

	Rumonge	12.5%	100.0%	25.0%	0.0%	0.0%
	Rutana	30.4%	100.0%	87.0%	17.4%	0.0%
	Ruyigi	56.0%	100.0%	36.0%	84.0%	0.0%
Area category:	Rural	20.4%	98.2%	29.5%	8.1%	0.5%
	Urban	63.6%	90.9%	60.6%	9.1%	0.0%
	Total	23.8%	97.6%	32.0%	8.2%	0.5%

The most of communities have access to only nurses for treatment during sickness. As reported many people don't have the capacity to visit health services during sickness unless it became too severe.



The consultation is not free as reported by a great majority of the households. In rural areas 87.2 percent of the communities reportedly paid fee for visiting the health services, while only 22.5 percent received free consultation. Some of the humanitarian organizations have distributed La Carte d'Assurance Maladie (CAM) cards for health support among targeted vulnerable people. These cards are mostly used for the purchase of medicines as mentioned in the above figure.

La Carte d'Assurance Maladie (CAM) is a **national health card insurance scheme** implemented by the government of Burundi since 1984. Purchase of a CAM card by a household entitles its members (restricted to two adults and all children below 18 years) to free health care at all public health facilities. The card is sold at a fixed price irrespective of the household size [in June 1992, the price of the card was 500 FBI (1.85U.S.\$)]. Persons without cards are required to pay user charges for government health care.

Poor people can not pay even for the card and thus, could not avail the services. According to the communities, the card is valid for certain people and there is a limit on the number of people per card and type of treatment.

2. Nutrition in Burundi in 2023

Malnutrition is a major public health problem and the most persisting cause of morbidity and mortality among children and adolescents throughout the world. The absence of proper and timely food is the major cause of malnutrition among children. In Burundi malnutrition is measured by various institutions through country-wide surveys like SMART, MICS-UNICEF, DHS-2016-17 and CFSVA 2023.

2.1. Nutrition Data Analysis Methodology

Data Entry and Cleansing

The raw data on an Excel file were cleaned up for the first time in order to remove the children for whom anthropometric measurements were missing and then transferred to ENA for SMART. A second step of data cleaning was carried out, for the indicators that had an automatic "flag" from the software. Data that could be corrected from the investigators' notes were corrected. Outliers (outliers according to SMART Flags) and missing values were excluded from the analysis.

Data analysis

Variable nutritional indices (weight-for-height, weight-for-age and height-for-age z-scores) were calculated on the ENA 2011 software using the age, weight, height and sex variables of children using WHO 2006 references. The data thus obtained from ENA were exported to STATA for cross-analysis with other variables. The clean databases were used for the calculation of the different nutrition indicators and cross-referencing with other indicators in the survey.

Warning

The age was very often incorrect and despite the corrections led to a survey score of 10, said to be acceptable. The recommendations for future surveys will be to have an automatic calculation of the number of months, thanks to the date of birth of the children, or vice versa.

2.2. Nutritional status of children under 5 years of age in Burundi in 2023

According to the WHO, young children and pregnant and lactating women are the most vulnerable to malnutrition. Their bodies need more nutrients, such as vitamins and minerals, and are more susceptible to the harmful consequences of deficiencies. Children are most at risk of starvation. Children become malnourished faster than adults. Children suffering from severe acute malnutrition are 11 times more likely to die than those with normal weights. In addition, malnourished children (such as those with stunted growth) are more likely to catch infections and have a harder time recovering from them because their immune systems are weakened. Globally, malnutrition is an underlying factor in more than half of all child deaths from pneumonia and malaria, and more than 40% of deaths from measles.

In this study, the nutritional status of children aged 6 to 59 months was measured to determine the prevalence of malnutrition in Burundi. This was done by taking their anthropometric measurements, i.e. age, sex, height, weight, upper arm circumference and the presence or absence of bilateral edema. These measurements were then used to calculate the following indicators:

- Height-for-age (T/A): When this indicator is below the baseline, the child is said to be stunted, which is a sign of chronic malnutrition.
- Weight-for-height (W/T): When this indicator is below the baseline, the child is said to be wasted, which is a sign of acute malnutrition. Acute malnutrition can also be diagnosed via the presence of bilateral oedema and/or upper arm circumference (MUAC).
- Weight-for-age (W/A): When this indicator is below the reference threshold, the child is said to be underweight.

Severe malnutrition is defined as a threshold of less than -3 SD for all of the above types of malnutrition. Severe acute malnutrition can also be detected when the MUAC is less than 115 millimeters.

Moderate malnutrition is when the value of the above ratios is between -3 and -2 SD. Moderate acute malnutrition can also be detected when the MUAC is between 115 and 124 millimeters.

Finally, we speak of global malnutrition when we combine the moderate and the severe.

Table 19: Definition of malnutrition according to anthropometric measures (standard deviation)

Degree	Acute malnutrition	Chronic malnutrition	Underweight
Severe	P/T < - 3 AND Or Presence of bilateral edema Or PB < 115 mm	T/A < -3 AND	P/A < -3 AND
Moderate	- 3 AND ≤ P/T < - 2 AND Or 115 mm ≤ PB < 125 mm And Absence of bilateral oedema	- 3 AND ≤ T/A < - 2 AND	-3 AND ≤ P/A < - 2 AND
Global	P/T < -2 AND	T/A < - 2 AND	P/A < - 2 AND

Table 20: Synthesis of anthropometric results

Type of malnutrition	Prevalence
Chronic malnutrition	55.9%
Acute malnutrition (W/T and oedema)	6.0%
Acute malnutrition (MUAC and oedema)	5.5%
Combined acute malnutrition (w/t, bp, and oedema)	8.8%
Oedema	1.3%
Underweight	29.5%

2.2.1. Chronic malnutrition

According to the WHO, stunting is defined as a low height-to-age ratio. It is the result of chronic or recurrent undernutrition, which is usually associated with several factors: disadvantaged socio-economic conditions, poor health and nutrition of the mother, frequent diseases, and/or inadequate infant and young child nutrition and care. Stunting prevents children from reaching their physical and cognitive potential.

In 2023, according to the results of this survey, the prevalence of chronic malnutrition remains very high, with more than one in two children stunted: 55.9% [54.6% - 57.1%]. This prevalence remains similar to that obtained in the 2022 SMART survey which was 55.8% [54.9% - 56.8%]. This result is well above the WHO's alert threshold of 30%.

It can be noted, however, that the prevalence of severe chronic malnutrition is slightly decreasing (non-significant) and increases from 25.0% [24.2% - 25.7%] in the 2022 SMART survey to 23.4% [22.3% - 24.5%] in 2023.

The figure below from the ENA software shows the distribution of the age-for-national sample size index in red compared to that of the reference population sample in green (WHO 2006). Note that the curve of the national sample in red is shifted significantly to the left, indicating that the surveyed population has more chronically malnourished children than the reference population.

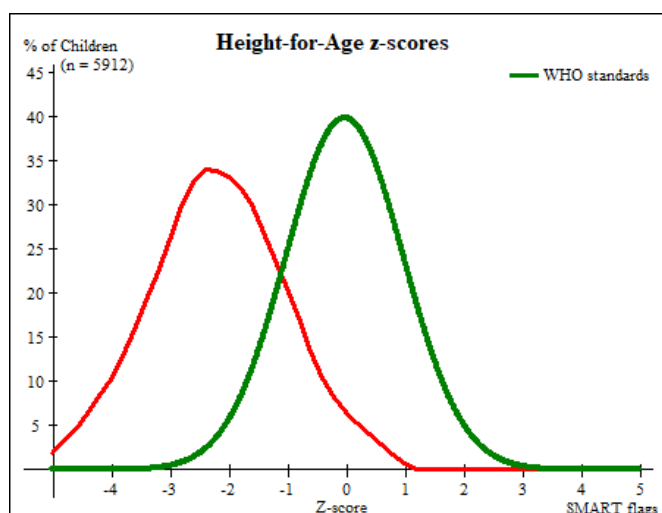
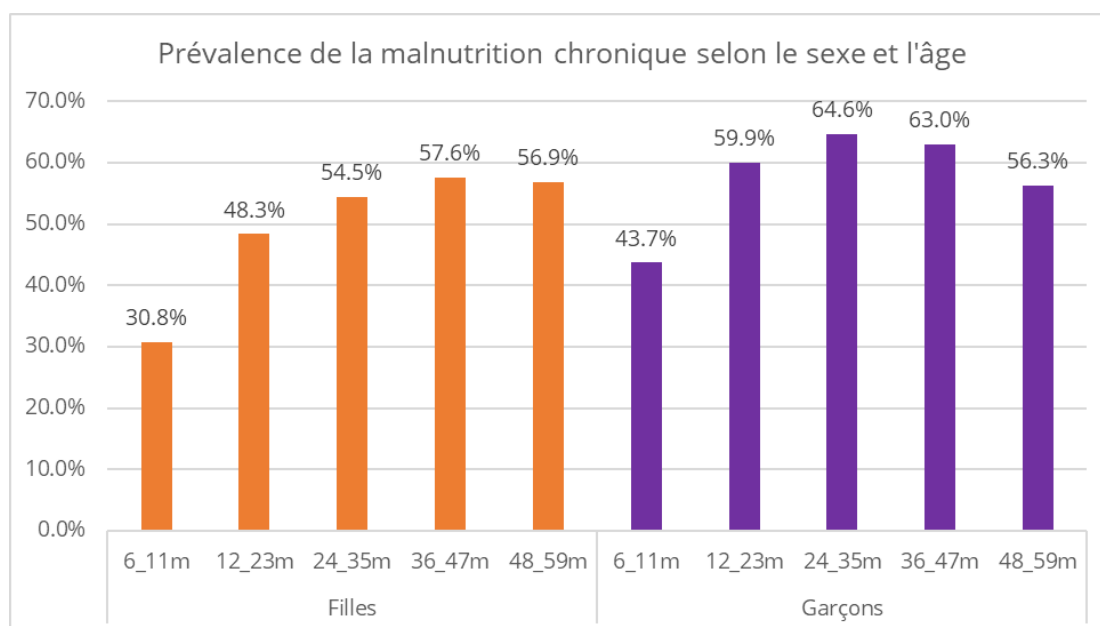


Figure 80: Distribution of chronic malnutrition in Z-score at the national level compared to WHO standards

Boys are more affected than girls with 59.4% suffering from chronic malnutrition compared to 52.2%. The graph below shows a rapid increase in chronic malnutrition between 6 and 24 months of age, for both girls and boys, with relative stabilization thereafter. This could be explained by the fact that at 6-8 months 15 percent of children are breastfed and this rate drops to 9.9 percent at 9-23 months of age. Another cause could be the fact that chronic malnutrition results from recurrent undernourishment during the months, so the older the child gets, the greater the impact of the accumulation of nutrient deficiency will have on his growth.

Figure-81 Prevalence of chronic malnutrition, CFSVA 2023



Rural areas are more affected than urban areas, with 59.2% chronic malnutrition compared to 28.3%. Chronic malnutrition is more prevalent in the provinces of Ruyigi (67.2%), Karuzi (62.9%) and Ngozi (62.8%). A prevalence above 50% is found in 17 of the country's 18 provinces. The province of Bujumbura has the lowest prevalence with 20.6% of children aged 6 to 59 months stunting.

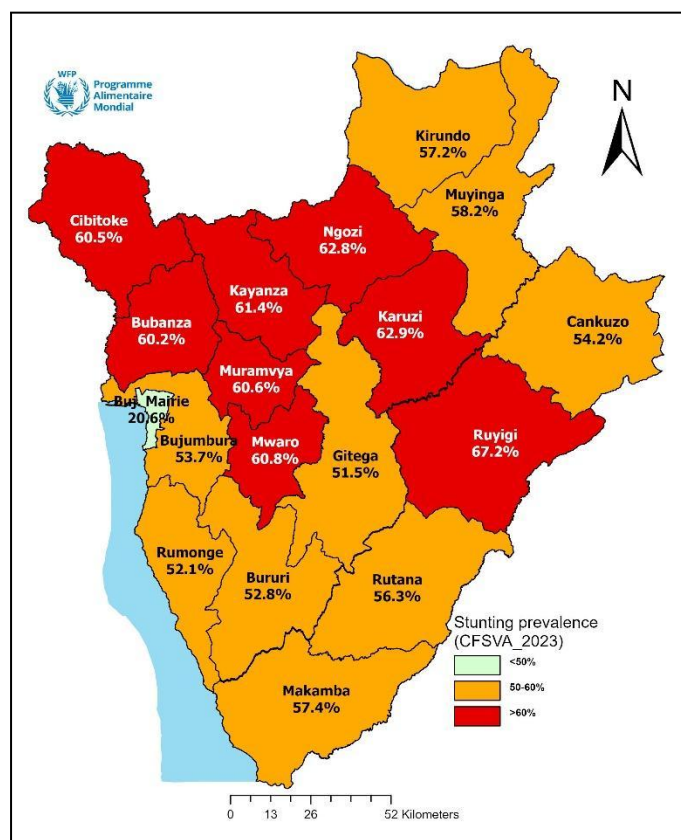
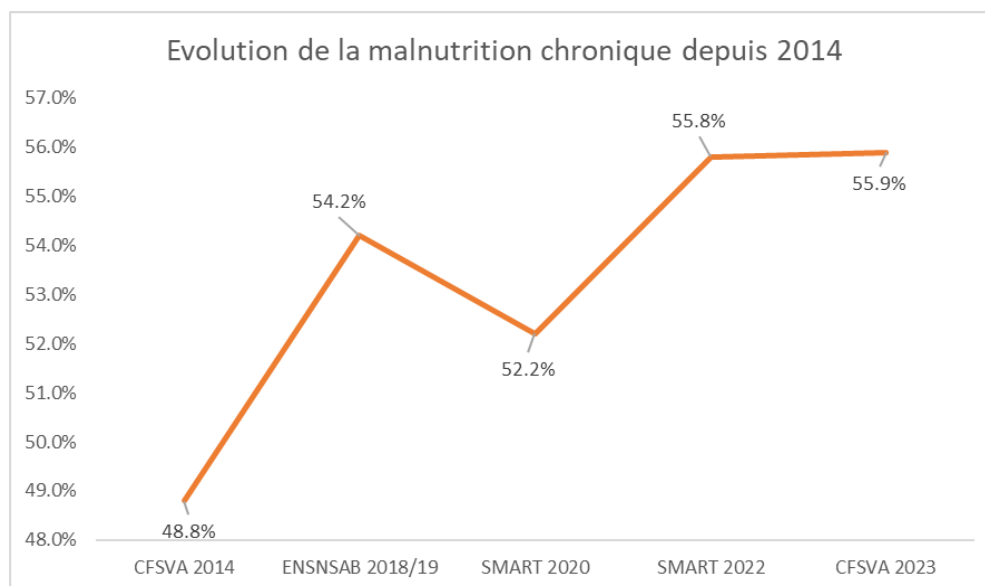


Figure 82: Prevalence of chronic malnutrition among children aged 6 to 59 months, by province

In terms of the evolution of chronic malnutrition over the last few years, the situation is very worrying because there has been a steady increase in this prevalence over the last 10 years.

Figure-83 Evolution of chronic malnutrition, CFSVA 2023



2.2.2. Acute malnutrition

According to the WHO, acute malnutrition is referred to as "wasting", a low weight-for-height ratio. It is often a sign of recent and severe weight loss due to a person not eating enough food and/or having an infectious disease, such as diarrhea, that caused them to lose weight. A young child with moderate or severe wasting has an increased risk of death, but this condition can be treated.

Prevalence of acute malnutrition among children aged 6 to 59 months by W/T index and presence of bilateral oedema

In 2023, according to the results of this survey, the prevalence of acute malnutrition among children aged 6 to 59 months is 6.0% [5.4% - 6.6%]. This prevalence is significantly higher than that of the 2022 SMART survey which was 4.8% [4.6% - 5.1%], however it is important to note that the data collection for this analysis was in August/September and therefore during the lean season, unlike the SMART carried out in March.

The prevalence of moderate acute malnutrition (MAM) is 4.2% [3.7% - 4.7%] and that of severe acute malnutrition (SAM) is 1.8% [1.5% - 2.2%].

The current prevalence is above the WHO average threshold of 5% and is in the 5 to 9% range of acute malnutrition that requires intervention (treatment and especially prevention) when combined with aggravating factors such as food insecurity, morbidity or population density.

As above, the figure below shows the distribution of the weight-for-size index of the national sample in red compared to that of the reference population sample in green (WHO 2006). Note that the curve of the national sample in red is shifted a little to the left, indicating that the surveyed population has more children suffering from acute malnutrition than the reference population.

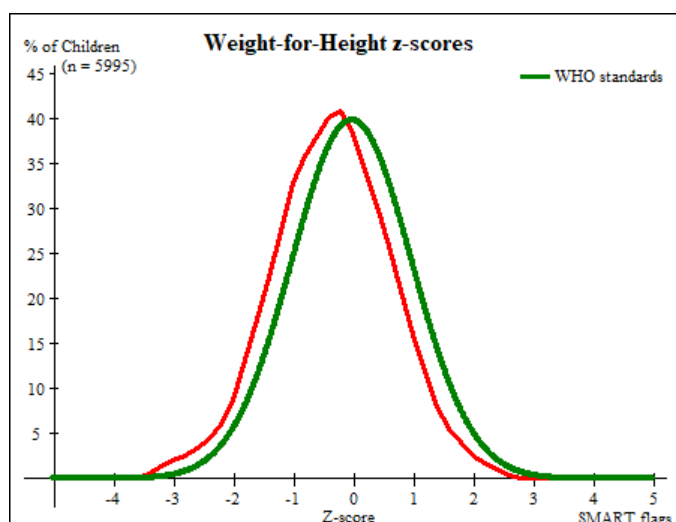


Figure 84: Distribution of acute malnutrition in Z-score at the national level compared to WHO standards

Boys are more affected than girls with 6.7% suffering from acute malnutrition compared to 5.2%.

Rural areas are more affected than urban areas, with 6.2% of acute malnutrition compared to 4.5%. Acute malnutrition is most prevalent in the provinces of Citiboke (9.0%), Cankuzo (8.9%) and Bururi (8.4%). A prevalence greater than 5% is found in 12 of the country's 18 provinces (as shown in the following figure). Kirundo province has the lowest prevalence at 3.3%, followed closely by Bujumbura town hall with 3.4% of children aged 6 to 59 months with wasting.

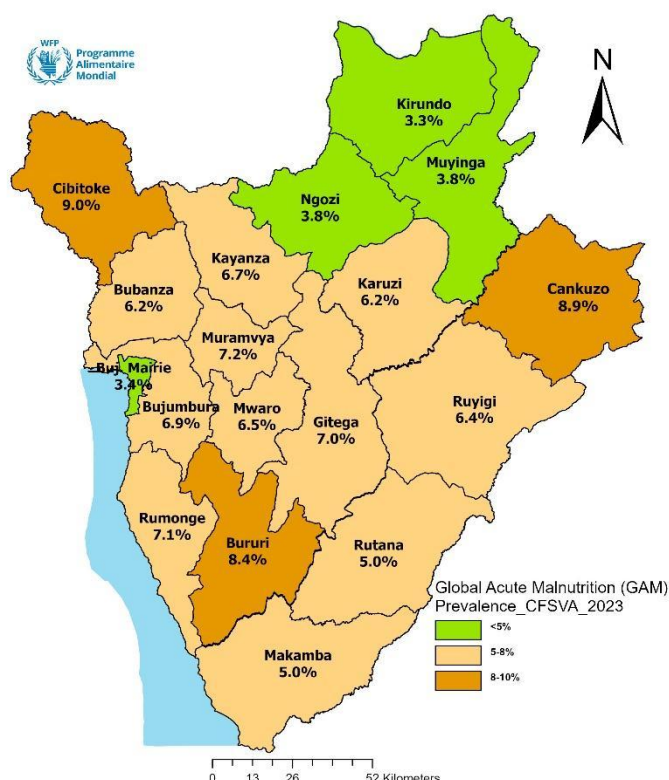


Figure 85: Prevalence of acute malnutrition among children aged 6 to 59 months, by province

In terms of the evolution of acute malnutrition over the last few years, the situation is relatively stable, with a maximum oscillation between 5.1% in 2018 and 6.1% in 2020. That being said, it is important to keep in mind that data collection was not always done at the same time (December for 2018 and August/September for 2020 and 2023), and thus sometimes outside the lean seasons.

Prevalence of acute malnutrition in children aged 6 to 59 months by upper arm circumference and presence of bilateral oedema

The prevalence of acute malnutrition according to MUAC and the presence of oedema is 5.5%.

If MUAC data alone are analyzed, the prevalence of acute malnutrition is 4.0%, of which 0.6% is SAM.

Combined prevalence of acute malnutrition among children aged 6 to 59 months

The so-called combined prevalence includes the three indicators of W/T, presence of bilateral oedema and MUAC. This amounts to 8.8% for global acute malnutrition, including 2.3% for severe acute malnutrition.

It is important to analyze acute malnutrition data with caution because in a context of high prevalence of stunting such as in Burundi, the P/T index of some children may tend to appear "normal", thereby reducing the prevalence rates of wasting.

2.2.3. Underweight

According to the WHO, children with low weight-for-age ratios are underweight. A child who is underweight may be stunted and/or wasted.

In 2023, according to the results of this survey, the prevalence of underweight among children aged 6 to 59 months is 29.5% [28.3% - 30.6%]. This prevalence is higher than that of the 2022 SMART survey which was 27.6% [26.8% - 28.3%]. A prevalence above 30% is considered to exceed the WHO's highest thresholds.

As above, the figure below shows the weight-for-age distribution of the national sample in red compared to that of the reference population sample in green (WHO 2006). Note that the curve of the national sample in red is shifted to the left, indicating that the surveyed population has more underweight children than the reference population.

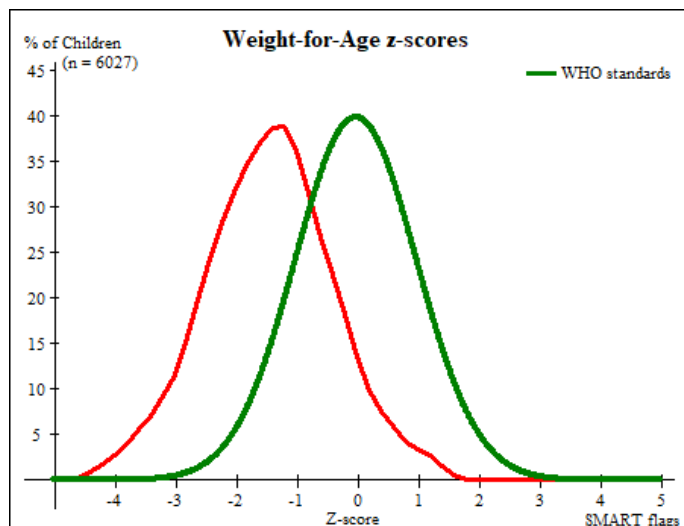


Figure 86: Distribution of underweight in Z-score at the national level compared to WHO standards

Boys are more affected than girls, with 31.6% being underweight compared to 27.3%.

Rural areas are more affected than urban areas, with 31.0% being underweight compared to 12.9%. Underweight is most prevalent in the provinces of Mwaro (35.5%), Muramvya (35.4%) and Citiboke (34.9%). A prevalence above 30% is found in 12 of the country's 18 provinces (as shown in the following figure). The province of Bujumbura has the lowest prevalence with 9.3% of children aged 6 to 59 being underweight.

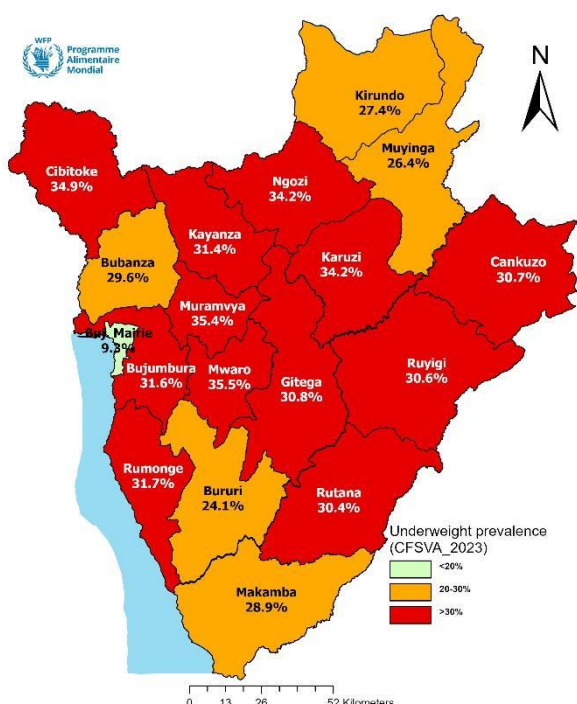


Figure 87: Prevalence of underweight among children aged 6 to 59 months, by province

3. Infant and young child feeding

Acceptable Dietary Intake (AAA) measures feeding practices in children aged 6 to 23 months. It is an indicator used to identify the proportion of children who consumed a diet with an acceptable dietary intake. The AAA quantifies the likelihood of adequate macronutrient and micronutrient intake in children in this age group.

The WHO Guidelines on Feeding Breastfed and Non-Breastfed Children recommend that children aged 6-23 months receive meals of an appropriate frequency and sufficient variety to ensure that energy and nutritional needs are met, respectively. This indicator combines information on minimum dietary diversity and minimum frequency of meals, with the additional requirement that non-breastfed infants have received milk at least twice in the previous day.

Table-21 Breastfeeding of children 6-23 months, CFSVA 2023

Age group	Female		Male		Total	
	Not breastfed	Breastfed	Not breastfed	Breastfed	Not breastfed	Breastfed
6-11	6.2%	93.8%	4.1%	95.9%	5.2%	94.8%
12-17	10.1%	89.9%	9.3%	90.7%	9.7%	90.3%
18-23	26.9%	73.1%	26.3%	73.7%	26.6%	73.4%
Total	14.0%	86.0%	13.5%	86.5%	13.7%	86.3%

According to CFSVA 2023, 94.8 percent of the children aged 6-8 months are breastfed, while it reduced to 73.4 percent with the children age of 18-23 years. Percentage of female children is higher among the breastfed children among all age groups including of age 6-8 months.

3.1. Minimum Dietary Diversity

According to the results of this survey, 40.6% of children have a minimum dietary diversity. These children will therefore have consumed food and beverages from 5 of the 8 food groups defined the day before the survey.

The main food groups consumed were cereals, roots, tubers and plantains (90.9% of children consumed them the day before the survey), followed by breast milk (88.7%) and finally fruits and vegetables rich in vitamin A (82.6%).

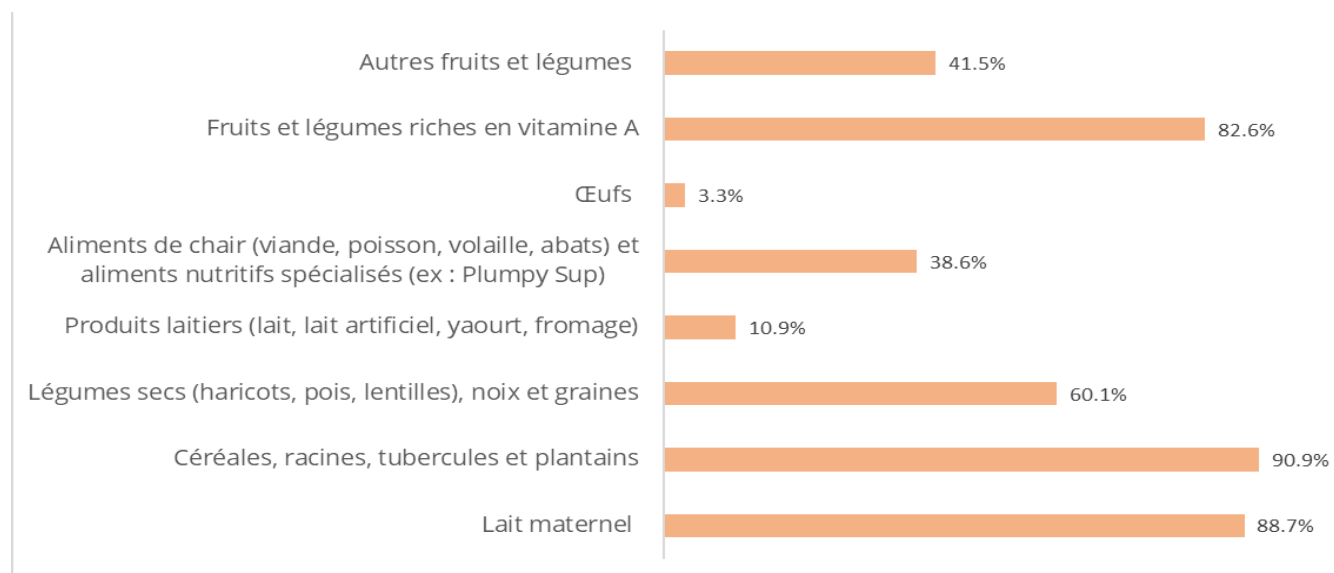


Figure 88: Proportion of consumption of each of the 8 food groups

Dietary diversity is significantly better in urban areas than in rural areas, with 53.9% of children consuming at least 5 of the 8 groups compared to 38.6% in rural areas.

At the provincial level, there are no major differences in terms of food groups consumed on average. The score is between Cibitoke and Kirundo which have a consumption of 3.5 groups on average, and the maximum is reached in Bujumbura town hall with 4.9.

3.2. Minimum Meal Frequency

According to the results of this survey, 32.8% of children consumed solid, semi-solid or liquid food (but also dairy products for non-breastfed children) the minimum number of times or more in the day prior to the survey. According to the WHO, feeding meals/snacks less frequently than recommended can compromise total energy and micronutrient intake, which in turn can lead to stunted growth, stunting, and micronutrient deficiencies.

The province with the highest meal frequency score was Cankuzo, with 48% of children aged 6 to 23 months eating meals the minimum number of times or more in the day prior to the survey. The province with the lowest score was Rumonge with 10.0%.

3.3. Acceptable Dietary Intake

According to the results of this survey, only 16.1% of children aged 6 to 23 months had an acceptable food intake the day before the survey. Despite a low score, we can note the progress that has been made in recent years. According to the 2020 SMART survey, the acceptable dietary intake in Burundi was 6.8% and in 2022 13.3%.

The acceptable food intake of boys (17.7%) is slightly higher than that of girls (14.5%), which does not allow us to explain why malnutrition rates are higher among boys.

In terms of the environment, we note that the acceptable food intake is slightly better in urban areas than in rural areas, with 19.5% compared to 15.6% in rural areas.

In terms of provincial distribution, the provinces with the best acceptable dietary intakes for children aged 6 to 23 months are Cankuzo (32.7%), Ngozi (22.2%) and Bujumbura rural (21.6%). The province with the lowest score is Rumonge (2.2%). A total of 7 provinces scored above the national average.

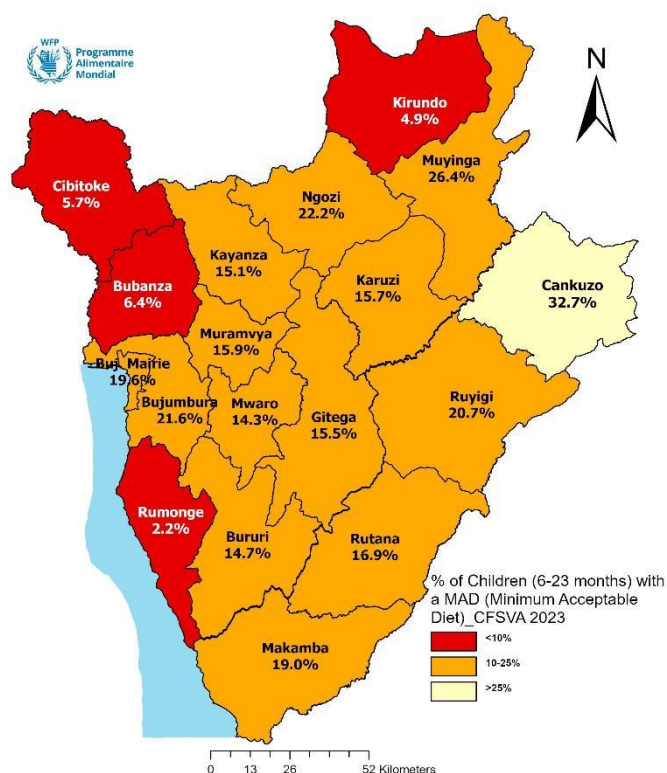


Figure 89: Acceptable Dietary Intake for Children Aged 6 to 23 Months, by Province

When comparing the acceptable food intake score with that of the households' standard of living, there is a very clear correlation. The more income a household has, the more children aged 6 to 23 months have a good diet.

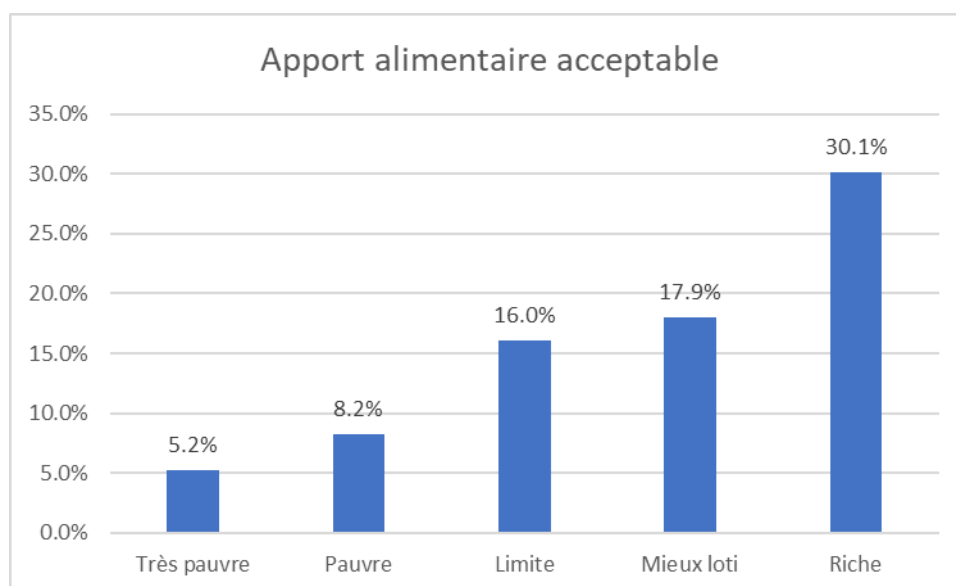
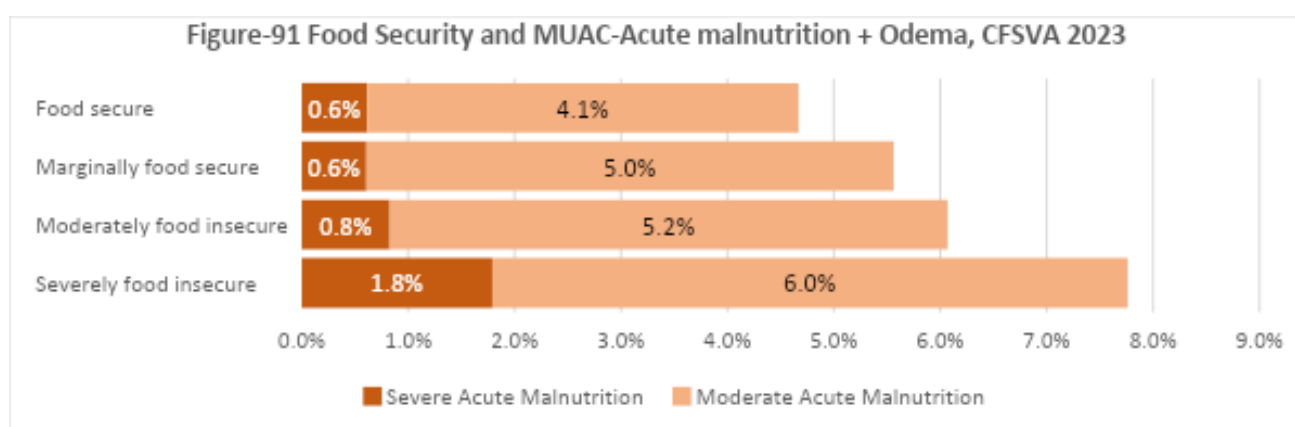


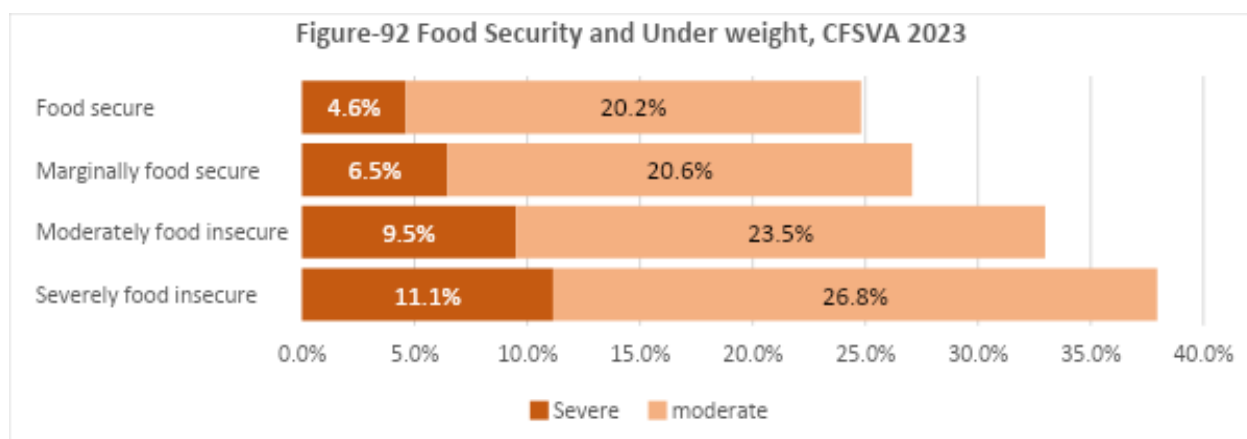
Figure 10: Acceptable dietary intake of children aged 6 to 23 months based on household standard of living

4. Links between malnutrition and food insecurity

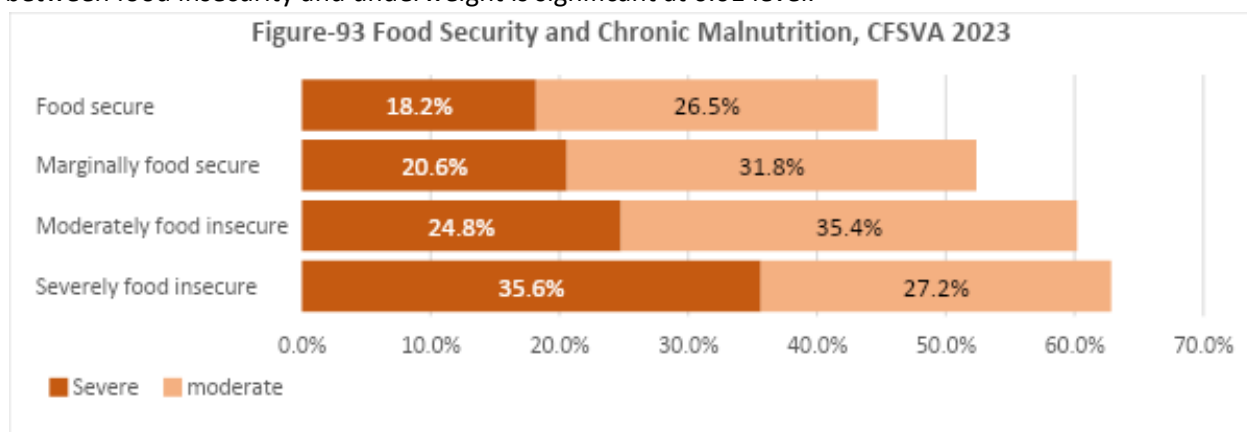
There is a link between food security and malnutrition. Households once become food insecure gradually affected by malnutrition. However, the process is slow as the change in human body takes some time. Similarly, the recovery from malnutrition is slower than from food insecurity. Thus, the correlation between food insecurity and malnutrition should be looked into that prospective.



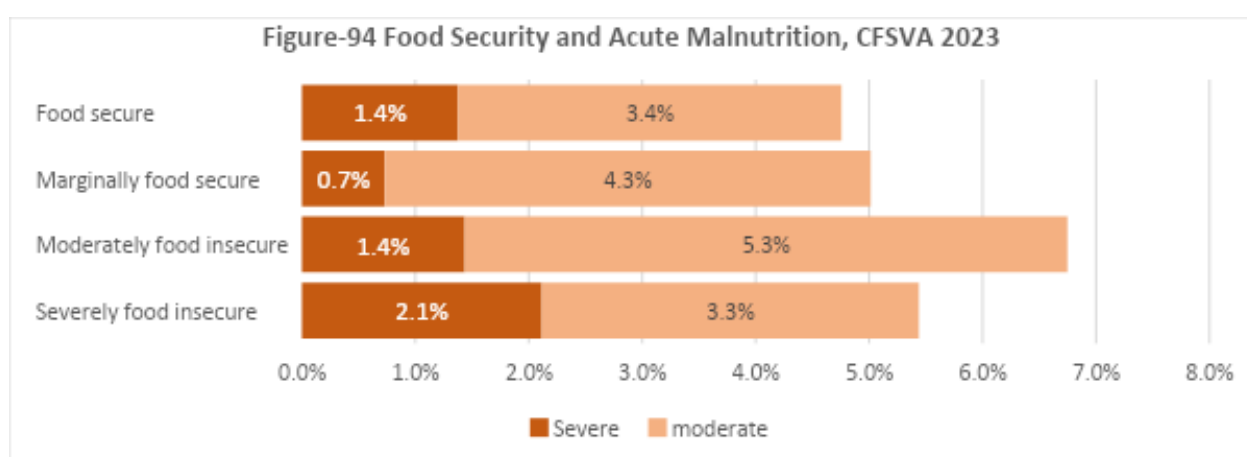
Looking into linkages between food security and malnutrition, in terms of MUAC the food insecurity increases with the increase in acute malnutrition. The correlation is highly significant at 0.01 level (2 tailed test).



Similarly, the chronic food insecurity is highly correlated with the under-weight regarding children aged 6-59 months. The severe food insecurity the higher the percentage of underweight children. The correlation between food insecurity and underweight is significant at 0.01 level.



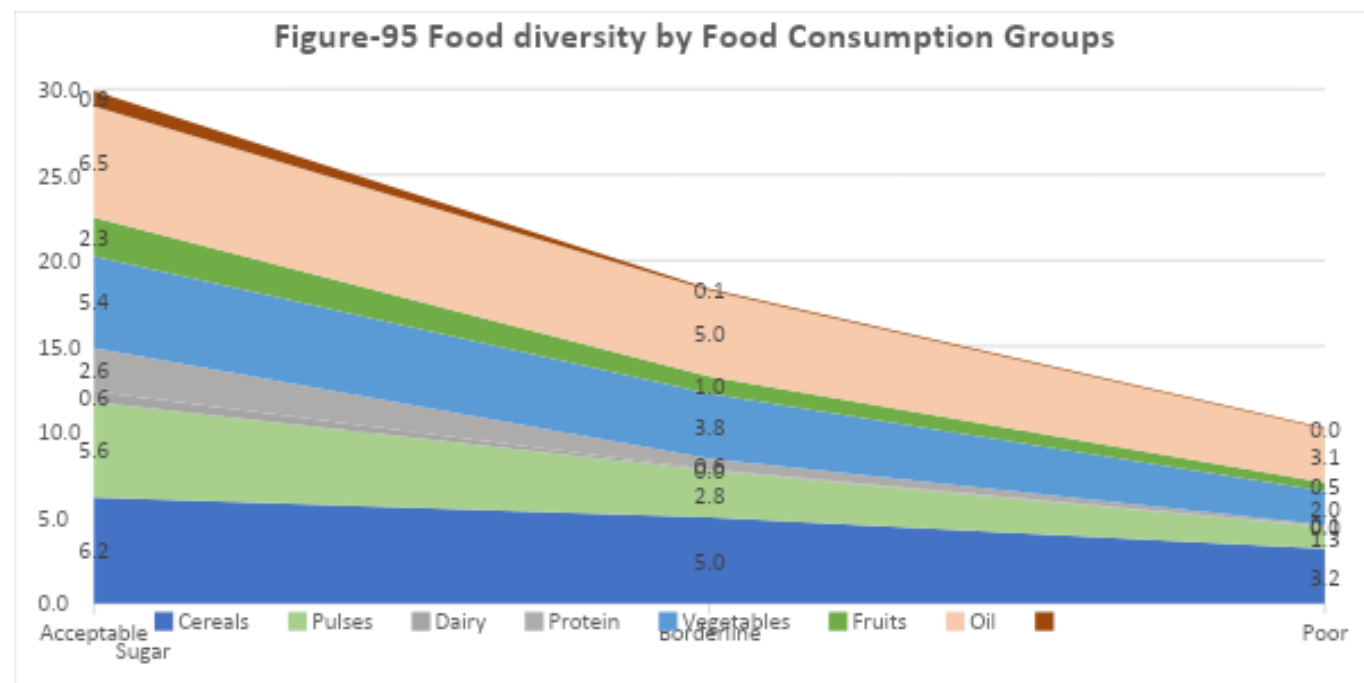
The chronic malnutrition is highly significant with the food insecurity at 0.01 level of significance. With the increase in food security the chronic malnutrition also increases.



Although, the acute malnutrition increases with the increase in food insecurity, but it is not significant at 0.01 level of significance. However, after sometimes the acute malnutrition will be significant with lag food insecurity situation as witnessed in chronic food insecurity.

5. Food diversity

The food diversity of the people is analysed with respect to their food consumption. Bean is the main staple food among cereals and is consumed alike by rich and poor households almost every day, depends on the domestic production and availability. In rural setup, maize and cassava are frequently consumed by households in addition with banana. Rice is mostly consumed by rich people or those produce themselves.



The poor food consumption group consumed only cereals and tubers for 3.2 days a week on average and oil for cooking for 3.1 days, while vegetables for around 2 days. They also consume beans for one a week. The poor food consumption group is not able to consume dairy, fruits, and adequate quantity of pulses. The borderline group have better food diversity but is still not able to consume the important food groups like dairy, fruits, inadequate pulses and protein. The acceptable food consumption group although has better food diversity but still missing the protein and partly fruits in their diet.

For better health, consuming all 8 food groups for an adequate number of days every week is important. Unfortunately, the consumption of important food groups is uncommon in the country and mostly depends on the purchasing power of the household or taste. Keeping in view the low-income levels and increasing market prices, many households cannot afford a diverse diet on regular basis. This has consequences for nutritional wellbeing of people classified as food insecure, and especially among vulnerable groups, such as pregnant and lactating women and children under five years of age.

6. Consumption of food rich in vitamin A, protein and iron

Micronutrient deficiency diseases (MNDs) which include iron deficiency and vitamin A deficiency are reported in many low-income countries including Burundi. Micronutrient deficiencies are caused by a number of factors, like, eating habits, food preferences, Poverty, lack of access to a variety of micronutrient-rich foods, cooking methods that do not conserve micronutrient, lack of knowledge of optimal dietary practices, and high incidence of infectious diseases. Some of these factors regarding Burundi will be explained in this chapter.

In Burundi, on average, 13.9 percent of households did not consume foods rich in vitamin A, while 53.2 percent consumed sometime in the seven days before the survey, whereas 3.3 percent did not consume foods rich in iron, while only 11.7 percent consumed on regular basis.

The households in rural areas were less likely to consume food with vitamin A as 29.4 percent consumed daily while 52.3% in urban areas. Among the provinces, the low level of vitamin A consumed on daily basis was in Ruyigi by 9.7 percent of households followed by Muramvya at 10.2 percent.

Iron enrich food consumed by a low percentage of households on daily basis was found in Ruyigi at 1.5 percent, followed by Bururi at 7.1 percent and Ngozi at 7.5 percent.

Table-22 Micronutrients and proteins intake in Burundi, CFSVA 2023

Category	Area	FG_VitA Category			FG_Protein Category			FG_HIron Category		
		never consumed	consumed sometimes	consumed at least daily	never consumed	consumed sometimes	consumed at least daily	never consumed	consumed sometimes	consumed at least daily
Province	Bubanza	2.6%	37.0%	60.4%	7.4%	52.8%	39.8%	2.1%	84.2%	13.6%
	Bujumbura mairie	7.7%	40.8%	51.5%	0.9%	16.8%	82.3%	3.7%	81.7%	14.6%
	Bujumbura rural	6.5%	41.9%	51.6%	4.8%	43.1%	52.0%	3.9%	81.0%	15.2%
	Bururi	24.2%	50.9%	24.8%	11.3%	47.1%	41.6%	2.4%	90.6%	7.1%
	Cankuzo	14.6%	52.4%	33.0%	4.6%	27.6%	67.8%	1.2%	83.9%	14.9%
	Cibitoke	15.2%	40.8%	44.0%	14.6%	58.6%	26.8%	4.4%	87.5%	8.2%
	Gitega	5.2%	44.8%	50.0%	2.2%	51.6%	46.2%	1.5%	84.6%	13.9%
	Karusi	11.2%	56.5%	32.3%	12.2%	52.9%	34.9%	0.4%	91.0%	8.6%
	Kayanza	32.4%	45.4%	22.2%	13.3%	44.8%	41.9%	20.3%	69.2%	10.5%
	Kirundo	39.6%	44.8%	15.7%	9.2%	63.1%	27.7%	5.3%	83.2%	11.5%
	Makamba	8.4%	45.8%	45.8%	1.6%	26.6%	71.8%	2.4%	81.4%	16.2%
	Muramvya	15.6%	74.2%	10.2%	20.4%	60.2%	19.4%	7.6%	88.2%	4.2%
	Muyinga	14.4%	59.1%	26.5%	7.0%	42.9%	50.1%	3.6%	80.1%	16.3%
	Mwaro	15.4%	58.5%	26.1%	6.8%	51.3%	41.9%	4.6%	85.1%	10.3%
	Ngozi	11.2%	74.3%	14.6%	6.0%	37.9%	56.1%	0.4%	92.1%	7.5%
	Rumonge	13.8%	68.7%	17.4%	5.8%	52.1%	42.1%	2.4%	86.6%	11.0%
	Rutana	11.4%	52.8%	35.8%	2.4%	33.2%	64.4%	1.3%	84.9%	13.8%
	Ruyigi	8.1%	82.2%	9.7%	6.5%	63.2%	30.4%	4.1%	94.4%	1.5%
Sex of HH head	Female	18.7%	50.8%	30.5%	8.9%	48.1%	43.0%	4.3%	84.6%	11.1%
	Male	12.9%	53.8%	33.3%	6.9%	43.5%	49.6%	3.1%	85.0%	11.9%
Area category	Rural	14.8%	55.8%	29.4%	8.1%	48.2%	43.7%	3.1%	85.7%	11.2%
	Urban	8.7%	39.0%	52.3%	2.5%	22.1%	75.4%	4.1%	81.5%	14.4%
Total		13.9%	53.2%	32.8%	7.3%	44.3%	48.4%	3.3%	84.9%	11.7%

A high proportion of households who never consumed iron-rich foods were found in Kayanza (20.3 percent), followed by Muramvya (7.6 percent). The non-consumption of iron-rich food is a cause of great concern across the country. Iron deficiency (anaemia) is very likely, contribute to health implications, especially for pregnant women and children. The 2016/2017 Demographic Health Survey estimated the prevalence of anaemia at 84% and 78% in children aged 6–8 and 9–11 months respectively.

Protein deficiency is another serious issue in Burundi. Protein deficiency cause swelling (also called oedema), especially in abdomen, legs, feet, and hands; brittle or thinning hair; dry and flaky skin; deep ridges on fingernails; loss of muscle mass and stress and tiredness.

Around 48.4 percent of the households consume protein enriched food on daily basis. In rural areas, fewer people consume adequate protein on daily basis than in urban areas. The same is for some provinces like Muramvya where only 19.4 percent of households consume protein enriched food on daily basis. Use of meat in diet is quite rare in rural areas because of the low purchasing capacity, which is a main source of protein.

7. Household dietary diversity score

The household dietary diversity score measures the number of food groups consumed by households during the 24 hours prior to the survey. During CFSVA 2023, food groups consumed by the people in Burundi among the 8 food groups have been assessed. Among these, food from 5 & above food groups are consumed by 18.1 percent of the population more in urban (44.5 percent) compared to rural (13.5 percent). Percentage of female-headed households consumed 5 & above food groups is less at 14.4 percent against the male-headed at 19 percent. The highest percentage of 5 & above food groups consumption is found in Bujumbura Mairie(46 percent), followed by Cankuzo (29.4 percent) and Gitega (23.2 percent). The majority of the people (81.9 percent) consumed 0-4 groups of food in the last 24 hours of the interview date. The lowest percentage of households with adequate food diversity was found in Cibitoke (4 percent), followed by Kirundo (5 percent) and Karusi (8 percent).

The low food diversity is an indication of poor food consumption and consequently food insecurity. The reasons are the low purchasing power, especially in rural areas, limited crops production, low level of livestock keeping and high price inflation in the country. Moreover, taste and preferences also contribute to the food diversity.

Table-23 HDDS: Food groups eaten in the past 24 hours, CFSVA 2023

Category	Area	0	1	2	3	4	5 & above
Province	Bubanza	2.0%	7.2%	25.8%	31.6%	23.6%	9.8%
	Bujumbura mairie	1.4%	2.8%	5.0%	15.9%	28.9%	46.0%
	Bujumbura rural	0.8%	4.6%	12.7%	30.6%	30.4%	20.8%
	Bururi	2.4%	11.1%	20.1%	28.0%	15.5%	22.9%
	Cankuzo	2.0%	5.8%	12.8%	22.8%	27.2%	29.4%
	Cibitoke	3.6%	12.6%	31.8%	31.6%	16.4%	4.0%
	Gitega	1.0%	8.4%	13.6%	27.0%	26.6%	23.4%
	Karusi	4.0%	10.0%	26.9%	32.9%	18.2%	8.0%
	Kayanza	8.8%	11.0%	23.8%	27.0%	17.6%	11.8%
	Kirundo	9.2%	16.2%	34.4%	25.6%	9.6%	5.0%
	Makamba	0.2%	3.8%	15.4%	30.6%	29.0%	21.0%
	Muramvya	6.4%	13.8%	26.6%	27.0%	17.4%	8.8%
	Muyinga	4.0%	10.2%	21.6%	28.4%	24.0%	11.8%
	Mwaro	7.2%	10.6%	14.8%	29.4%	24.4%	13.6%
	Ngozi	2.0%	4.8%	17.4%	29.7%	26.7%	19.4%
	Rumonge	2.4%	7.6%	26.9%	29.7%	24.2%	9.2%
	Rutana	1.4%	6.4%	16.8%	30.6%	29.6%	15.2%
	Ruyigi	11.8%	11.0%	15.0%	18.8%	24.6%	18.8%

Sex of HH head	Female	5.6%	10.4%	21.8%	26.0%	21.8%	14.4%
	Male	3.4%	8.0%	18.7%	27.2%	23.7%	19.0%
Area category:	Rural	4.2%	9.4%	21.4%	28.8%	22.6%	13.5%
	Urban	1.6%	2.8%	7.0%	16.7%	27.4%	44.5%
Total		3.8%	8.5%	19.3%	27.0%	23.3%	18.1%

8. Cooking facilities

The type of cooking facilities to some extent determines the economic status of the households. The type of cooking stoves is normally used according to the type of fuel available in the area, but also determine the status of poverty, in addition to hygienic environment. In rural areas the “three stone” stove is commonly used, which is the cheapest and feasible for majority which is suitable for burning woods for cooking. However, these types of stoves are not environment friendly and uneconomical with emitting too much smoke and unburnt particles. The households in urban areas opt for better stoves with little or no smoke and with better burning capacity.

Table-24 Type of Cooking stove used by households, CFSVA 2023

Category	Area	Brazier	Electric stove	Fixed improved cooking stoves	Gas stove	Movable improved cooking stoves	Other (Specify)	Traditional 3-stone fireplace
Province	Bubanza	10.2%	0.4%	2.4%	0.0%	1.8%	0.0%	85.3%
	Bujumbura mairie	93.8%	0.2%	0.8%	0.2%	0.4%	2.3%	2.3%
	Bujumbura rural	10.2%	0.0%	0.0%	0.0%	0.2%	0.0%	89.6%
	Bururi	3.2%	0.2%	0.4%	0.0%	0.4%	0.0%	95.8%
	Cankuzo	7.2%	0.0%	0.6%	0.2%	1.4%	0.0%	90.6%
	Cibitoke	6.2%	0.0%	0.4%	0.0%	1.0%	0.6%	91.8%
	Gitega	21.4%	0.2%	1.0%	0.0%	0.2%	0.0%	77.2%
	Karusi	2.2%	0.0%	0.8%	0.0%	0.6%	0.2%	96.2%
	Kayanza	12.6%	0.0%	1.0%	0.0%	1.4%	0.2%	84.8%
	Kirundo	3.0%	0.0%	18.6%	0.0%	2.4%	1.4%	74.6%
	Makamba	4.0%	0.2%	0.0%	0.0%	0.6%	0.0%	95.2%
	Muramvya	3.2%	0.0%	0.4%	0.0%	0.2%	0.4%	95.8%
	Muyinga	7.0%	0.4%	0.2%	0.0%	0.0%	0.8%	91.6%
	Mwaro	2.2%	0.0%	0.2%	0.0%	0.0%	0.2%	97.4%
	Ngozi	3.4%	0.0%	2.4%	0.0%	0.2%	0.0%	94.0%
	Rumonge	11.6%	0.0%	0.0%	0.0%	0.0%	0.0%	88.4%
	Rutana	6.8%	0.0%	2.0%	0.0%	0.4%	0.0%	90.8%
	Ruyigi	0.2%	0.0%	0.4%	0.0%	0.2%	0.0%	99.2%
Sex of HH head	Female	17.1%	0.0%	3.2%	0.0%	0.6%	0.1%	79.0%
	Male	15.7%	0.1%	1.4%	0.0%	0.6%	0.5%	81.7%
Area category:	Rural	4.1%	0.1%	1.9%	0.0%	0.4%	0.2%	93.3%
	Urban	83.1%	0.3%	0.8%	0.1%	1.9%	1.8%	12.0%
Total		15.9%	0.1%	1.7%	0.0%	0.6%	0.4%	81.2%

The CFSVA 2023 witnessed that a great majority of 81.2 percent households use the “three-stone” stoves and 15.9 percent Brazier, while 1.7 percent use fixed improved cooking stove. The “three stone” stove is used by majority in rural areas at 93.3 percent, while majority in urban at 83.1 percent use Brazier for cooking. The

highest percentage of households (95.2 percent) using three-stone stoves were found in Ruyigi (99.2 percent), followed by Mwaro (97.4 percent) and Karusi (96.2 percent).

The major users of Brazier were found in Bujumbura Mairie at 93.8 percent, followed by Gitega at 21.4 percent and Kayanza at 12.6 percent. The more the urban area the more the use of Brazier.

9. Access to sanitation

Proper sanitation is quite important for human beings. The poor personal hygiene and unsafe management of human excreta are closely associated with diarrhoea as well as parasitic infections, such as soil-transmitted helminths (worms). Thus, proper sanitation is of utmost importance for good health and resultantly for better food security.

According to CFSVA 2023, only 5.7 percent of the households are using flush latrines, while a great majority use a simple pit latrine for defecation. In rural areas around 1 percent of households have no latrine and go to bush/field for the purpose. The percentage of households with no latrine is more in Kirundo at 2.6 percent, followed by Cankuzo, Kayanza and Cibitoke at 1.8 percent each. Overall, 0.8 percent of households have no latrine at all. The highest percentage of households in rural areas use traditional hole latrine at 49 percent, followed by simple pit latrine at 38.9 percent. In urban areas the highest percentage of households use improved latrine at 38.3 percent, followed by flush latrine at 34.6 percent of households.

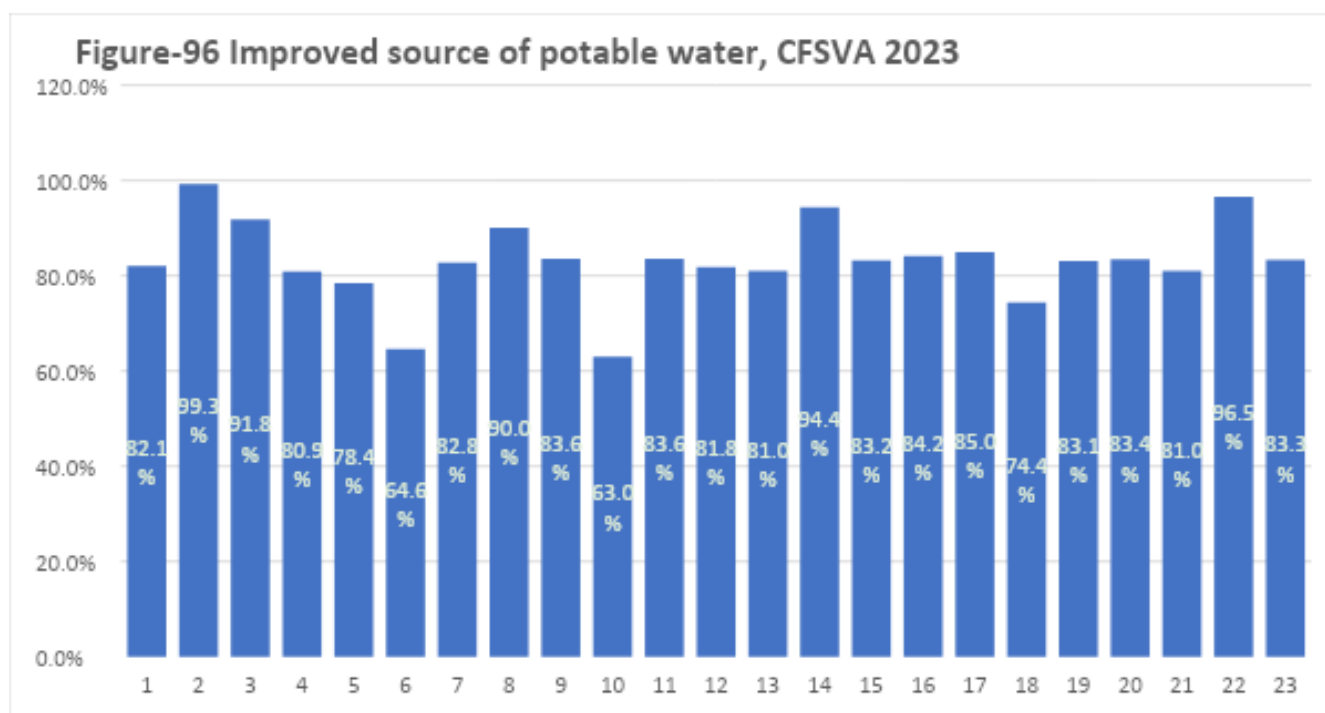
Table-25 Toilet facilities used by households, CFSVA 2023

Category	Area	Bush/leaf	Improved latrine (closed toilet, concrete slab, cover)	Other (Specify)	Simple pit latrine	Toilet with water (flush)	Tradition al hole
Province	Bubanza	0.2%	9.8%	0.6%	49.6%	0.0%	39.8%
	Bujumbura mairie	0.0%	40.0%	0.0%	12.2%	43.0%	4.8%
	Bujumbura rural	0.2%	12.4%	0.6%	39.8%	3.2%	43.8%
	Bururi	0.0%	5.8%	0.0%	38.8%	2.6%	52.7%
	Cankuzo	1.8%	3.8%	0.0%	25.6%	1.4%	67.4%
	Cibitoke	1.8%	7.2%	0.2%	45.2%	0.2%	45.4%
	Gitega	0.0%	18.6%	0.0%	47.4%	3.6%	30.4%
	Karusi	1.0%	2.0%	3.0%	37.7%	0.4%	55.9%
	Kayanza	1.8%	16.8%	0.4%	31.4%	1.8%	47.8%
	Kirundo	2.6%	3.6%	0.6%	60.2%	1.6%	31.4%
	Makamba	0.0%	10.0%	0.4%	48.0%	1.6%	40.0%
	Muramvya	0.2%	5.6%	0.0%	27.4%	0.8%	66.0%
	Muyinga	1.4%	7.6%	0.2%	40.0%	0.6%	50.2%
	Mwaro	0.6%	3.4%	0.0%	44.8%	0.6%	50.6%
	Ngozi	1.2%	6.2%	4.8%	70.3%	0.0%	17.6%
	Rumonge	0.2%	6.2%	0.0%	49.9%	1.6%	42.1%
	Rutana	0.6%	3.4%	0.2%	38.0%	2.8%	55.0%
	Ruyigi	0.8%	1.8%	0.8%	19.8%	0.0%	76.8%
Sex of HH head	Female	1.3%	10.3%	0.9%	36.8%	7.3%	43.4%
	Male	0.6%	10.8%	0.6%	39.3%	5.4%	43.3%
Area category:	Rural	0.9%	5.9%	0.7%	42.8%	0.7%	49.0%
	Urban	0.1%	38.3%	0.0%	16.2%	34.6%	10.8%
	Total	0.8%	10.7%	0.6%	38.9%	5.7%	43.3%

10. Potable Water

Water is the key element of the third pillar of food security (food absorption). According to UNICEF, nearly 60 percent of deaths due to diarrhoea worldwide are attributable to unsafe drinking water and poor hygiene and sanitation. Handwashing with soap alone can cut the risk of diarrhoea by at least 40 percent, while significantly lowering the risk of respiratory infections. Clean home environments and good hygiene are important for preventing the spread of both pneumonia and diarrhoea, and safe drinking water and proper disposal of human waste, including child faeces, are vital to stopping the spread of diarrhoeal disease among children and adults²⁴.

The CFSVA 2023 found that majority of the households in Burundi use improved water sources for drinking and cooking at 83.3 percent. The percentage of such households is higher in urban areas at 96.5 percent than in rural areas at 81 percent. The lowest percentage of households use the improved water is found in Kirundo at 63 percent, followed by Cibitoke at 64.6 percent and Ruyigi at 74.4 percent.



The unimproved water sources are ponds, streams and open wells, mostly in rural areas. Such unhygienic water causes transmissible diseases such as diarrhoea, dysentery, typhoid and cholera. More than 400 million school days are missed each year in the World due to diseases related to unclean drinking water²⁵.

In the Burundi 16.7 percent of households using unimproved water sources for drinking and cooking. The percentage of such households is higher in rural as 19 percent compared to urban as 3.5 percent.

11. Minimum Dietary Diversity (MDD) for Women

FAO has developed the MDD-W indicator as a food-based indicator for measuring dietary diversity and micronutrient adequacy, key dimensions of diet quality of women of reproductive age. This is a qualitative indicator that measures the proportion of women 15-49 years of age who consume food items (at least 15g) from at least five out of the ten defined food groups the previous day or night. This estimation is associated with a higher probability of nutrient adequacy for 11 micronutrients. Since the indicator's launch in 2015, 55

²⁴ UNICEF. *One is Too Many: Ending Child Deaths from Pneumonia and Diarrhoea*. New York: UNICEF, 2016. <https://data.unicef.org/wp-content/uploads/2016/11/UNICEF-Pneumonia-Diarrhoea-report2016-web-version.pdf>.

²⁵ DAKIE International e.V.

countries have collected MDD-W data: 11 at national level and 44 at the subnational level for research or impact evaluation.

In Burundi, the percentage of women meet the minimum food diversity (eating at least 5 food groups out of 10) is 19.4 percent on average. The female headed households have lower percentage at 18.5 meeting the MDD.

A significant percentage of women of 15-49 years of age don't have food diversity, especially in the rural areas. It is mostly because of financial constraints but also partly due to inadequate awareness and traditional food habits. There is a need for awareness campaigns, especially in the less educated communities about food diversity for everybody and especially for women of reproductive age.

Table-26 Minimum Dietary Diversity for women

Category	Area	Does not meet the MDD	Meet the MDD
Province	Bubanza	77.9%	22.1%
	Bujumbura mairie	54.8%	45.2%
	Bujumbura rural	74.5%	25.5%
	Bururi	67.2%	32.8%
	Cankuzo	84.1%	15.9%
	Cibitoke	90.6%	9.4%
	Gitega	88.2%	11.8%
	Karusi	95.6%	4.4%
	Kayanza	88.1%	11.9%
	Kirundo	95.9%	4.1%
	Makamba	66.3%	33.7%
	Muramvya	93.6%	6.4%
	Muyinga	93.4%	6.6%
	Mwaro	92.1%	7.9%
	Ngozi	85.4%	14.6%
	Rumonge	74.7%	25.3%
	Rutana	83.0%	17.0%
	Ruyigi	89.2%	10.8%
Sex of HH head	Female	81.5%	18.5%
	Male	80.4%	19.6%
Area category:	Rural	85.0%	15.0%
	Urban	59.4%	40.6%
Total		80.6%	19.4%

Among provinces the lowest percentage was recorded in kirundo at 4.1 percent followed by Karusi at 4.4 percent, Muramvya at 6.4 percent and Muyinga at 6.6 percent. The highest percentage of women meeting the MDD was found in Bujumbura Mairie at 45.2 percent, followed by Makamba at 33.7 percent and Bururi at 32.8 percent.

CHAPTER 7: Conclusion and Recommendations

1. Conclusion

Burundi has been facing a number of challenges that have led to an increase in food insecurity in the country, including rapid price hikes, an unstable economy, subsistence farming and the impact of frequent disasters including COVID-19 pandemic. According to the Multidimensional Poverty Survey 2021-22, 75.1 percent population is poor, while below \$2.15 PPP the poor are estimated to be 65 percent²⁶. According to the 2023 Human Development Report, Burundi is ranked 170th out of 189 countries in terms of human development. The report measures human development based on three dimensions: health, education, and standard of living.

Agriculture is the mainstay of rural communities, where nearly 86 percent of the population resides and over 90 percent of them are involved in farming²⁷. The cultivated land is mostly confined to marshland or swamps, except for tea and coffee or limited dry land farming. The pressure on land is enormous and on increase due to the increase in population. The land holding is 1 hectare for 95 percent of the farmers. Due to the limited scope in the service sector and negligible industrial base, almost the whole rural population and partly the emerging urban are stuck to the agriculture sector for survival despite the over-exploitation of the available output. As a result, many people migrate to other countries, especially to neighbouring countries for seasonal or temporary jobs, despite facing a number of hurdles, to meet their domestic needs.

On the other hand, Youth and educated people don't want to continue with farming because of its nature being more laborious and a primitive farming system. Therefore, the future of farming is becoming bleak unless serious attention is given to it. Another aspect is the over-involvement of women in farming due to the limited use of technology, which forces young men to become less productive or move out of agriculture in search of work in urban areas.

Fluctuations in the yields over time were caused by the lack of rains and drought in the country. Cultivated land under irrigation is quite limited in the country and mostly in plain areas. Farmers have no storage facilities for their products, thus, try to sell them soon after harvest. Many farmers sell their products immediately because they have to return the loan, mostly to shopkeepers, middlemen, credit unions or village associations. After a few months, the farmers start buying food items from the markets at higher prices than they sold out before.

Although some agencies are working on improved seeds and inputs, farmers have complained about inadequate inputs like fertilizer, improved seeds, hand tools, mechanization and processing and lack of marketing infrastructure and information.

A significant part of urban areas, in most of the provinces including Bujumbura Mairies, is practically semi-urban with a significant share in farming. The food preferences are limited to few food items even in the whole rural area and partly in urban areas. The consumption pattern shows that people in the country are heavily relying on beans, cassava, plantains and partly maize while consumption of other cereals is insignificant in rural areas.

As a result of all the above factors, food insecurity has increased over time and now stands at 41.2 percent in the country.

²⁶ UNDP-Global Multidimensional Poverty Index 2023

²⁷ CFSVA 2023 Findings.

2. Recommendations

1. A comprehensive policy and subsequently an action plan should be developed by the government to counter the growing food insecurity and increase crop production.
2. Keeping in view better results, the assistance to small farmers, school feeding and support to children and PLWs should be expanded in the highly food insecure provinces.
3. There is a need for smart agriculture farming in the country. The respective agencies including the agriculture department and other stakeholders should start a comprehensive programme on a priority basis.
4. Keeping in view the small land holding, integrated farming or cooperative farming is a viable solution for an increase in production and specialization of crops.
5. Mechanization of farming should be introduced for better farming and reduce the load on women, which needs to be accelerated and adopted to increase the cultivation capacity and productivity.
6. Quality inputs including fertilizer and improved seed should be adequately and timely provided to farmers.
7. An awareness-raising programme for the food diversification and use of nutritional food should be developed and implemented for the general public and especially for the PLWs and children.
8. The rural transport of goods is highly physical (use bikes) to carry heavy loads. In addition to high risk, it puts enormous pressure on the health of such individuals. There is a need to motorise such transport on subsidised rates and make it safer on the road.
9. Water harvesting techniques should be introduced and adapted among farmers, especially in cereal and vegetable cultivation areas.
10. Improvement of access roads to the markets or main roads is suggested in order to enable the production to be easily transported.
11. Credit programme should be made easy and extended to all deserving households. The petty traders and small businesspeople, especially working women should be specifically targeted.
12. Value chain and value-added to crops are quite important, which will also help in expanding the service sector and involve young and educated people, consequently reducing the migration to urban areas.
13. A comprehensive training programme in smart farming, for farmers, is required including mechanization and conservation.
14. Drought-resistant varieties should be introduced to cope with the unfavourable rainfall.
15. Tree farming should be introduced in the existing cultivated land with training and incentives.
16. Food security should be regularly monitored and necessary measures for the vulnerable groups of the population be taken on a regular basis.
17. A social security should be provided to families who rely on child labour in order to send such children for education.
18. The National Food Security Group/cluster should be strengthened to monitor the food security and plan for action.

19. Annexures

Annexure-1 Food security in Burundi, CFSVA 2023

Category	Area	Food secure	Marginally food secure	Moderately food insecure	Severely food insecure	Food insecure
Province	Bubanza	14.2%	50.2%	33.6%	2.0%	35.6%
	Bujumbura mairie	30.5%	56.4%	11.5%	1.6%	13.1%
	Bujumbura rural	24.2%	48.6%	25.8%	1.4%	27.2%
	Bururi	18.0%	30.9%	42.0%	9.1%	51.1%
	Cankuzo	26.6%	46.4%	22.2%	4.8%	27.0%
	Cibitoke	12.6%	40.0%	41.6%	5.8%	47.4%
	Gitega	16.6%	46.6%	27.0%	9.8%	36.8%
	Karusi	18.2%	38.3%	37.9%	5.6%	43.5%
	Kayanza	18.3%	31.0%	42.7%	8.0%	50.7%
	Kirundo	3.4%	22.5%	46.2%	27.9%	74.1%
	Makamba	14.4%	68.6%	14.6%	2.4%	17.0%
	Muramvya	8.2%	26.6%	48.2%	17.0%	65.2%
	Muyinga	21.6%	42.9%	32.7%	2.8%	35.5%
	Mwaro	31.7%	33.5%	29.5%	5.4%	34.9%
	Ngozi	15.2%	50.9%	27.3%	6.6%	33.9%
	Rumonge	12.8%	42.9%	38.1%	6.2%	44.3%
	Rutana	27.8%	50.4%	18.2%	3.6%	21.8%
	Ruyigi	6.1%	39.7%	37.2%	17.0%	54.3%
Sex of HH head	Female	10.4%	39.6%	36.9%	13.1%	50.0%
	Male	18.1%	42.8%	31.3%	7.8%	39.1%
Area category :	Rural	14.9%	41.1%	34.3%	9.7%	44.0%
	Urban	30.5%	51.7%	15.9%	1.9%	17.8%
	Total	16.6%	42.2%	32.3%	8.9%	41.2%

Annex-2 Food expenditure share categories

Category	Area	Acceptable (<50%)	Borderline (50-65%)	Poor (65-74%)	Very Poor (>=75%)
Province	Bubanza	24.6%	33.0%	25.4%	17.0%
	Bujumbura mairie	25.1%	29.7%	25.8%	19.3%
	Bujumbura rural	29.2%	30.4%	24.2%	16.1%
	Bururi	35.1%	24.5%	13.1%	27.3%
	Cankuzo	31.3%	23.9%	17.1%	27.8%
	Cibitoke	25.9%	24.8%	21.6%	27.7%
	Gitega	15.6%	19.6%	20.2%	44.6%
	Karusi	29.1%	29.9%	16.8%	24.2%
	Kayanza	37.6%	20.5%	15.4%	26.5%
	Kirundo	2.3%	6.3%	9.4%	82.0%
	Makamba	10.4%	20.2%	24.2%	45.1%
	Muramvya	28.3%	21.0%	17.4%	33.3%
	Muyinga	38.1%	25.6%	19.6%	16.7%

	Mwaro	34.1%	23.4%	16.4%	26.1%
	Ngozi	12.0%	16.8%	19.4%	51.9%
	Rumonge	17.7%	24.7%	21.1%	36.5%
	Rutana	21.7%	25.7%	24.3%	28.3%
	Ruyigi	13.4%	19.8%	25.9%	40.9%
Sex of HH head	Female	19.0%	21.1%	18.5%	41.3%
	Male	25.4%	24.5%	20.7%	29.5%
Area category:	Rural	23.8%	22.9%	19.6%	33.6%
	Urban	26.5%	29.3%	24.2%	20.0%
	Total	24.2%	23.9%	20.3%	31.6%

Annexure-3 Food consumption score, CFSVA 2023

Category	Area	Acceptable	Borderline	Poor
Province	Makamba	82.0%	14.8%	3.2%
	Bujumbura mairie	83.4%	13.3%	3.3%
	Rutana	73.6%	20.2%	6.2%
	Gitega	61.8%	32.0%	6.2%
	Cankuzo	64.4%	27.6%	8.0%
	Bujumbura rural	68.2%	22.8%	9.0%
	Bubanza	57.4%	33.3%	9.4%
	Ngozi	64.1%	26.5%	9.4%
	Mwaro	56.5%	30.1%	13.4%
	Muyinga	55.5%	28.9%	15.6%
	Cibitoke	42.6%	41.6%	15.8%
	Rumonge	49.7%	33.3%	17.0%
	Karuzi	48.5%	32.3%	19.2%
	Ruyigi	42.1%	38.1%	19.8%
	Bururi	43.0%	30.7%	26.3%
	Kayanza	37.4%	30.4%	32.2%
	Muramvya	21.8%	39.4%	38.8%
	Kirundo	26.3%	26.9%	46.8%
Sex of HH head	Female	46.4%	29.4%	24.2%
	Male	55.6%	28.4%	16.1%
Area category	Rural	50.9%	30.0%	19.1%
	Urban	77.8%	16.4%	5.8%
	Total	53.8%	28.5%	17.7%

Annexe 4 : Prévalences de malnutrition chronique, aiguë et insuffisance pondérale par province

Provinces	Malnutrition chronique	Malnutrition aiguë modérée (P/T et œdèmes)	Insuffisance pondérale
Bubanza	60.2%	6.2%	29.6%
Bujumbura mairie	20.6%	3.4%	9.3%
Bujumbura rural	53.7%	6.9%	31.6%
Bururi	52.8%	8.4%	24.1%
Cankuzo	54.2%	8.9%	30.7%
Cibitoke	60.5%	9.0%	34.9%
Gitega	51.5%	7.0%	30.8%
Karuzi	62.9%	6.2%	34.2%
Kayanza	61.4%	6.7%	31.4%
Kirundo	57.2%	3.3%	27.4%
Makamba	57.4%	5.0%	28.9%
Muramvya	60.6%	7.2%	35.4%
Muyinga	58.2%	3.8%	26.4%
Mwaro	60.8%	6.5%	35.5%
Ngozi	62.8%	3.8%	34.2%
Rumonge	52.1%	7.1%	31.7%
Rutana	56.3%	5.0%	30.4%
Ruyigi	67.2%	6.4%	30.6%
National	55.9%	6.0	29.5%

Annexe 5 : Prévalences de malnutrition chronique, aiguë et insuffisance pondérale par milieu

Milieu	Malnutrition chronique	Malnutrition aiguë modérée (P/T et œdèmes)	Insuffisance pondérale
Rural	58.8%	6.2%	31.0%
Urban	29.0%	4.5%	12.9%

Annexe 6: Méthodologie de calcul de l'Apport Alimentaire Acceptable

Les 8 groupes d'aliments utilisés sont :

- | | | | |
|---|--|---|--|
| 1 | Lait maternel | 5 | Aliments de chair (viande, poisson, volaille, abats) et aliments nutritifs spécialisés (ex : Plumpy Sup) |
| 2 | Céréales, racines, tubercules et plantains | 6 | Œufs |
| 3 | Légumes secs (haricots, pois, lentilles), noix et graines | 7 | Fruits et légumes riches en vitamine A |
| 4 | Produits laitiers (lait, lait artificiel, yaourt, fromage) | 8 | Autres fruits et légumes |

Pour la fréquence de repas minimale, il a été considéré dans le calcul les recommandations suivantes de l'OMS : que les nourrissons allaités au sein de 6 à 8 mois reçoivent des aliments complémentaires 2 à 3 fois par jour et que les enfants de 9 à 23 mois reçoivent des aliments complémentaires 3 à 4 fois par jour avec des collations nutritives supplémentaires 1 à 2 fois par jour. Les principes directeurs de l'OMS sur l'alimentation de l'enfant non allaité augmentent cette recommandation à 4-5 repas par jour pour les enfants non allaités.

Enfin, les données ont été désagrégées selon la distribution d'âge de 6 à 11 mois, 12 à 17 mois et 18 à 23 mois.

Annexure-7 Market- MFI issues

Name	Issues	Percent
AccessProtection	are difficult to access because far from major road network	12.5%
	report access issues seasonally	7.8%
Assortment	report assortment issues with Communication NFI	14.1%
	report assortment issues with Education NFI	7.8%
	report assortment issues with Health NFI	17.2%
	report assortment issues with Household items	1.6%
	report assortment issues with Shelter NFI	4.7%
	with an assortment of Between 1-50 SKU	56.3%
	with an assortment of Between 201-1000 SKU	87.5%
	with an assortment of Between 51-200 SKU	84.4%
	with an assortment of more than 1000 SKU	46.9%
Availability	are reporting to be running out of cereals	25.0%
	are reporting to be running out of NFIs	4.7%
	are reporting to be running out of other foods	23.4%
	are reporting to be scarce of NFIs	12.5%
	are reporting to be scarce of cereals	20.3%
	are reporting to be scarce of other foods	10.9%
Competition	Have 1 trader controlling NFI	17.2%
	Have 1 trader controlling other foods	12.5%
	have less than 5 traders selling Cereals	4.7%
	have less than 5 traders selling NFI	35.9%
	have less than 5 traders selling other foods	10.9%
Infrastructure	report missing close toilets	20.3%
	report missing closed sewage	48.4%
	report missing communication network	12.5%
	report missing dedicated waste collection	29.7%
	report missing shelter	28.1%
	report missing uninterrupted electricity	46.9%
	report missing water	37.5%
	report missing walkways	40.6%
Price	have experienced price increase on Cereals	79.7%
	have experienced price increase on NFI	53.1%
	have experienced price increase on other foods	64.1%
	report that Cereal prices are unstable	71.9%
	report that NFI prices are unstable	79.7%
	report that other food prices are unstable	78.1%

Quality	display damaged packaging of food/commodities	21.9%
	display unlabelled packaged food/commodities	42.2%
	do not store separately food and contaminants	3.1%
	do not store separately fresh food and animal origin food	4.7%
	have issues with refrigeration of food	71.9%
	lack proper refrigeration systems	57.8%
	present food with sign of spoilage	20.3%
	show expired food/commodities	93.8%
Resilience	report Node complexity issue on NFI	1.6%
	report Node criticality issue on Cereals	4.7%
	report Node criticality issue on NFI	4.7%
	report Node criticality issue on other foods	1.6%
	report Node density issue on Cereals	73.4%
	report Node density issue on NFI	43.8%
	report Node density issue on other foods	67.2%
Service	report service lacking in issuance of receipt	98.4%
	report service lacking in offering multiple forms of payment	9.4%
	report service lacking in visibility on price tags	100.0%
	report service lacking the possibility of remote purchase	98.4%
	report service with long waiting time	45.3%

Annexure-8 Source of drinking water

Category	Area	Unimproved water	Improved water
Province	Bubanza	17.9%	82.1%
	Bujumbura mairie	0.7%	99.3%
	Bujumbura rural	8.2%	91.8%
	Bururi	19.1%	80.9%
	Cankuzo	21.6%	78.4%
	Cibitoke	35.4%	64.6%
	Gitega	17.2%	82.8%
	Karusi	10.0%	90.0%
	Kayanza	16.4%	83.6%
	Kirundo	37.0%	63.0%
	Makamba	16.4%	83.6%
	Muramvya	18.2%	81.8%
	Muyinga	19.0%	81.0%
	Mwaro	5.6%	94.4%
	Ngozi	16.8%	83.2%
	Rumonge	15.8%	84.2%
	Rutana	15.0%	85.0%
	Ruyigi	25.6%	74.4%
Sex of HH head	Female	16.9%	83.1%
	Male	16.6%	83.4%
Area category:	Rural	19.0%	81.0%

	Urban	3.5%	96.5%
	Total	16.7%	83.3%

Annexure-9 Agriculture Land holding by households

Category	Area	No land	hold land	Total
Province	Bubanza	27.5%	72.5%	100.0%
	Bujumbura mairie	92.5%	7.5%	100.0%
	Bujumbura rural	7.2%	92.8%	100.0%
	Bururi	2.2%	97.8%	100.0%
	Cankuzo	5.4%	94.6%	100.0%
	Cibitoke	24.6%	75.4%	100.0%
	Gitega	16.4%	83.6%	100.0%
	Karusi	1.0%	99.0%	100.0%
	Kayanza	13.6%	86.4%	100.0%
	Kirundo	20.0%	80.0%	100.0%
	Makamba	3.0%	97.0%	100.0%
	Muramvya	4.2%	95.8%	100.0%
	Muyinga	14.0%	86.0%	100.0%
	Mwaro	2.0%	98.0%	100.0%
	Ngozi	3.6%	96.4%	100.0%
	Rumonge	18.8%	81.2%	100.0%
	Rutana	5.8%	94.2%	100.0%
	Ruyigi	2.6%	97.4%	100.0%
Sex of HH head	Female	21.5%	78.5%	100.0%
	Male	15.6%	84.4%	100.0%
Area category:	Rural	9.7%	90.3%	100.0%
	Urban	75.4%	24.6%	100.0%
	Total	16.7%	83.3%	100.0%

Annexure-10 Land holding categories, CFSVA 2023

Category	Area	below 1/4th of hectare	1/4 to 1/2 hect	1/2 to below 1 hect	1-2 hect	2.1 to 5 hect	above 5 hect
Province	Bubanza	96.2%	2.2%	1.4%	0.3%	0.0%	0.0%
	Bujumbura mairie	74.3%	6.8%	6.8%	1.4%	5.4%	5.4%
	Bujumbura rural	78.4%	12.9%	6.0%	1.5%	0.4%	0.6%
	Bururi	92.2%	2.5%	3.3%	0.8%	0.2%	1.0%
	Cankuzo	59.8%	16.5%	12.9%	6.8%	3.4%	0.6%
	Cibitoke	83.3%	9.8%	3.2%	2.1%	1.6%	0.0%
	Gitega	72.7%	10.5%	7.9%	5.0%	2.2%	1.7%
	Karusi	58.1%	21.8%	11.7%	6.3%	1.8%	0.4%
	Kayanza	81.3%	9.7%	6.0%	1.6%	0.9%	0.5%
	Kirundo	83.8%	9.3%	3.8%	2.3%	1.0%	0.0%
	Makamba	59.8%	22.1%	11.1%	4.9%	1.9%	0.2%

	Muramvya	88.7%	6.1%	3.8%	1.3%	0.2%	0.0%
	Muyinga	55.8%	13.7%	14.4%	8.6%	6.0%	1.4%
	Mwaro	79.4%	7.6%	8.0%	1.6%	1.8%	1.6%
	Ngozi	79.9%	13.3%	4.6%	1.7%	0.4%	0.2%
	Rumonge	81.5%	10.6%	4.4%	2.5%	1.0%	0.0%
	Rutana	79.8%	12.3%	6.6%	0.6%	0.6%	0.0%
	Ruyigi	97.9%	1.0%	0.0%	0.4%	0.2%	0.4%
Sex of HH head	Female	83.0%	8.4%	5.1%	2.3%	0.8%	0.4%
	Male	76.8%	11.3%	6.8%	3.0%	1.5%	0.6%
Area category:	Rural	77.9%	10.9%	6.5%	2.8%	1.4%	0.5%
	Urban	77.1%	9.4%	6.1%	2.9%	1.9%	2.6%
	Total	77.8%	10.8%	6.5%	2.8%	1.4%	0.6%

Annexure-11 Livestock holding, CFSVA 2023

Category	Area	NO	YES
Province	Bubanza	47.2%	52.8%
	Bujumbura mairie	92.3%	7.7%
	Bujumbura rural	20.4%	79.6%
	Bururi	32.4%	67.6%
	Cankuzo	40.2%	59.8%
	Cibitoke	61.8%	38.2%
	Gitega	40.4%	59.6%
	Karusi	42.9%	57.1%
	Kayanza	37.4%	62.6%
	Kirundo	50.2%	49.8%
	Makamba	38.8%	61.2%
	Muramvya	29.2%	70.8%
	Muyinga	52.2%	47.8%
	Mwaro	22.8%	77.2%
	Ngozi	21.2%	78.8%
	Rumonge	48.5%	51.5%
	Rutana	46.8%	53.2%
	Ruyigi	48.0%	52.0%
Sex of HH head	Female	56.3%	43.7%
	Male	43.1%	56.9%
Area category:	Rural	38.6%	61.4%
	Urban	85.0%	15.0%
	Total	45.5%	54.5%

Annexure-12 Share of income from different sources, CFSVA 2023

Category	Area	First Main Source	Second Source	Third Source
Province	Bubanza	75	21	4
	Bujumbura mairie	89	10	1
	Bujumbura rural	72	22	6
	Bururi	82	15	3

	Cankuzo	81	18	1
	Cibitoke	85	14	1
	Gitega	78	20	2
	Karusi	71	26	3
	Kayanza	72	20	7
	Kirundo	71	21	8
	Makamba	80	17	2
	Muramvya	77	17	6
	Muyinga	77	20	3
	Mwaro	80	17	3
	Ngozi	74	22	3
	Rumonge	85	14	1
	Rutana	75	24	1
	Ruyigi	80	17	3
Sex of HH head	Female	82	16	2
	Male	78	19	3
Area category	Rural	77	19	3
	Urban	86	13	2
	Total	79	18	3

Annexure-13 Sources of income, CFSVA 2023

Category	Area	No source	1 source	2 sources	3 sources
Province	Bubanza	0.6%	16.3%	49.2%	33.9%
	Bujumbura mairie	4.5%	61.5%	28.3%	5.7%
	Bujumbura rural	0.2%	8.4%	38.2%	53.2%
	Bururi	0.8%	37.0%	40.0%	22.1%
	Cankuzo	1.0%	36.0%	51.4%	11.6%
	Cibitoke	0.4%	41.0%	51.2%	7.4%
	Gitega	0.0%	25.6%	58.2%	16.2%
	Karusi	0.4%	11.4%	63.7%	24.6%
	Kayanza	0.4%	18.2%	35.0%	46.4%
	Kirundo	1.4%	25.6%	27.2%	45.8%
	Makamba	0.0%	18.2%	57.4%	24.4%
	Muramvya	0.2%	21.2%	46.6%	32.0%
	Muyinga	0.4%	19.0%	60.8%	19.8%
	Mwaro	1.2%	29.4%	47.6%	21.8%
	Ngozi	0.4%	13.4%	56.1%	30.1%
	Rumonge	2.0%	46.3%	45.5%	6.2%
	Rutana	0.8%	26.6%	65.8%	6.8%
	Ruyigi	0.4%	35.4%	44.8%	19.4%
Sex of HH head	Female	2.4%	36.7%	43.7%	17.3%
	Male	0.7%	27.4%	47.9%	24.0%
Area category:	Rural	0.6%	24.9%	49.5%	25.0%

	Urban	3.3%	52.6%	33.6%	10.5%
	Total	1.0%	29.0%	47.1%	22.8%

**Annexure-14 Remittances received by households,
CFSVA 2023**

Category	Area	NO	YES
Province	Bubanza	97.0%	3.0%
	Bujumbura mairie	92.3%	7.7%
	Bujumbura rural	95.0%	5.0%
	Bururi	94.4%	5.6%
	Cankuzo	97.6%	2.4%
	Cibitoke	94.8%	5.2%
	Gitega	94.8%	5.2%
	Karusi	95.8%	4.2%
	Kayanza	96.2%	3.8%
	Kirundo	91.0%	9.0%
	Makamba	94.0%	6.0%
	Muramvya	98.0%	2.0%
	Muyinga	95.8%	4.2%
	Mwaro	96.6%	3.4%
	Ngozi	96.6%	3.4%
	Rumonge	93.6%	6.4%
	Rutana	94.6%	5.4%
	Ruyigi	98.2%	1.8%
Sex of HH head	Female	90.7%	9.3%
	Male	96.2%	3.8%
Area category:	Rural	95.6%	4.4%
	Urban	93.1%	6.9%
	Total	95.2%	4.8%

Annexure-15 Land holding and area under production, CFSVA 2023

Category	Area	No land	hold land	Produce crops
Province	Bubanza	27.5%	72.5%	71.5%
	Bujumbura mairie	92.5%	7.5%	7.4%
	Bujumbura rural	7.2%	92.8%	89.6%
	Bururi	2.2%	97.8%	76.9%
	Cankuzo	5.4%	94.6%	92.2%
	Cibitoke	24.6%	75.4%	61.2%
	Gitega	16.4%	83.6%	81.8%
	Karusi	1.0%	99.0%	98.0%
	Kayanza	13.6%	86.4%	60.6%
	Kirundo	20.0%	80.0%	72.0%
	Makamba	3.0%	97.0%	93.6%
	Muramvya	4.2%	95.8%	90.8%
	Muyinga	14.0%	86.0%	83.0%

	Mwaro	2.0%	98.0%	96.8%
	Ngozi	3.6%	96.4%	74.3%
	Rumonge	18.8%	81.2%	77.4%
	Rutana	5.8%	94.2%	91.8%
	Ruyigi	2.6%	97.4%	85.2%
Sex of HH head	Female	21.5%	78.5%	68.9%
	Male	15.6%	84.4%	75.5%
Area category:	Rural	9.7%	90.3%	83.8%
	Urban	75.4%	24.6%	19.8%
	Total	16.7%	83.3%	74.3%

Annexure-16 Purpose of Farming, CFSVA 2023

Crops	For own consumption or no use	For sale	For both own consumption and sale
Banana	35.3%	4.9%	59.8%
Beans	81.0%	0.4%	18.6%
Cassava	81.2%	0.7%	18.1%
Coffee	25.0%	58.3%	16.7%
Irish Potato	60.8%	0.7%	38.5%
Maize (Corn)	83.5%	0.9%	15.6%
Rice	53.8%	1.1%	45.1%
Sweet potatoes	87.0%	0.3%	12.7%
Tea	40.0%	40.0%	20.0%
Vegetables and leaves	55.8%	9.3%	34.9%
Forestry (Trees)	66.7%	0.0%	33.3%
Other (specify)	37.2%	11.6%	51.2%
Total	79.1%	1.0%	19.9%

Annexure-17 Type of seed used for crops, CFSVA 2023

Category	Area	Improved	Local
Province	Bubanza	15.9%	84.1%
	Bujumbura mairie	10.8%	89.2%
	Bujumbura rural	7.4%	92.6%
	Bururi	3.7%	96.3%
	Cankuzo	10.6%	89.4%
	Cibitoke	8.5%	91.5%
	Gitega	9.5%	90.5%
	Karusi	18.9%	81.1%
	Kayanza	59.7%	40.3%
	Kirundo	2.2%	97.8%
	Makamba	7.3%	92.7%
	Muramvya	20.3%	79.7%

	Muyinga	14.2%	85.8%
	Mwaro	12.8%	87.2%
	Ngozi	30.6%	69.4%
	Rumonge	6.7%	93.3%
	Rutana	21.8%	78.2%
	Ruyigi	3.8%	96.2%
Sex of HH head	Female	12.5%	87.5%
	Male	14.7%	85.3%
Area category:	Rural	13.9%	86.1%
	Urban	23.6%	76.4%
	Total	14.3%	85.7%

Annexure-18 Sources of seed used for crops, CFSVA 2023

Type	Cooperatives/ Association	Government	Market	NGOs	Seed owner	Others
Sweet potatoes	0.9%	0.3%	5.1%	0.6%	91.6%	1.4%
Cassava	0.5%	0.5%	9.5%	1.1%	86.5%	1.9%
Banana	1.0%	1.0%	13.7%	2.0%	81.4%	1.0%
Forestry (Trees)	0.0%	0.0%	33.3%	0.0%	66.7%	0.0%
Tea	6.7%	20.0%	6.7%	0.0%	60.0%	6.7%
Vegetables and leaves	4.7%	4.7%	37.2%	0.0%	53.5%	0.0%
Beans	2.8%	1.0%	43.4%	0.3%	52.3%	0.2%
Coffee	8.3%	25.0%	8.3%	8.3%	50.0%	0.0%
Irish Potato	8.8%	4.1%	35.8%	0.7%	49.3%	1.4%
Maize (Corn)	12.6%	5.1%	34.2%	1.2%	46.7%	0.3%
Rice	9.5%	6.4%	36.4%	0.4%	46.6%	0.8%
Other	2.3%	1.2%	29.1%	2.3%	65.1%	0.0%
Total	4.3%	2.0%	28.3%	0.8%	63.8%	0.8%

Annexure-19 Fertilizer used by farmers, CFSVA 2023

Type	NO	YES
Banana	42.2%	57.8%
Beans	17.5%	82.5%
Cassava	78.6%	21.4%
Coffee	25.0%	75.0%
Forestry (Trees)	66.7%	33.3%
Irish Potato	5.4%	94.6%
Maize (Corn)	17.6%	82.4%
Other (specify)	32.6%	67.4%
Rice	36.7%	63.3%

Sweet potatoes	56.6%	43.4%
Tea	20.0%	80.0%
Vegetables and leaves	11.6%	88.4%
Total	37.7%	62.3%

Annexure-20 Fertilizer usage by province, CFSVA 2023

Category	Area	%
Province	Bubanza	51.5
	Bujumbura mairie	74.3
	Bujumbura rural	59.6
	Bururi	74.3
	Cankuzo	44.7
	Cibitoke	35.0
	Gitega	74.6
	Karusi	68.0
	Kayanza	92.1
	Kirundo	31.1
	Makamba	52.1
	Muramvya	66.5
	Muyinga	73.5
	Mwaro	82.6
	Ngozi	88.2
	Rumonge	50.8
	Rutana	51.0
	Ruyigi	60.1
Sex of HH head	Female	58.8
	Male	63.0
Area category:	Rural	62.0
	Urban	70.4
	Total	62.3

Annexure-21 Access to sufficient and quality fertilizer, CFSVA 2023

Category	Area	%
Province	Bubanza	55.1%
	Bujumbura mairie	78.2%
	Bujumbura rural	64.4%
	Bururi	64.1%
	Cankuzo	59.2%
	Cibitoke	31.8%
	Gitega	68.2%
	Karusi	57.5%
	Kayanza	81.4%
	Kirundo	25.0%
	Makamba	45.9%
	Muramvya	73.5%

	Muyinga	75.1%
	Mwaro	91.3%
	Ngozi	84.8%
	Rumonge	47.4%
	Rutana	50.9%
	Ruyigi	48.0%
Sex of HH head	Female	67.0%
	Male	64.4%
Area category:	Rural	64.3%
	Urban	75.6%
	Total	64.8%

Annexure-22 Area under Irrigation, CFSVA 2023

Category	Area	% area
Province	Bubanza	7.8
	Bujumbura mairie	35.3
	Bujumbura rural	7.5
	Bururi	14.3
	Cankuzo	6.0
	Cibitoke	3.5
	Gitega	18.4
	Karusi	6.8
	Kayanza	37.4
	Kirundo	10.2
	Makamba	10.6
	Muramvya	11.9
	Muyinga	12.3
	Mwaro	7.7
	Ngozi	7.6
	Rumonge	7.0
	Rutana	9.3
	Ruyigi	8.1
Sex of HH head	Female	9.6
	Male	11.1
Area category:	Rural	10.5
	Urban	17.9
	Total	10.8

Annexure-23 Type of irrigation facilities, CFSVA 2023

Category	Area	Buckets/waterin g cans	Irrigation canal	Others	Tube wells
Province	Bubanza	60.2%	36.3%	0.9%	2.7%
	Bujumbura mairie	40.0%	47.5%	7.5%	5.0%
	Bujumbura rural	70.2%	23.2%	0.6%	6.0%

	Bururi	81.2%	17.4%	0.0%	1.4%
	Cankuzo	73.3%	18.6%	1.2%	7.0%
	Cibitoke	44.8%	44.8%	10.3%	0.0%
	Gitega	78.9%	8.0%	13.0%	0.0%
	Karusi	84.4%	14.7%	0.5%	0.5%
	Kayanza	69.2%	29.5%	1.3%	0.0%
	Kirundo	33.3%	62.2%	1.8%	2.7%
	Makamba	74.4%	24.4%	1.2%	0.0%
	Muramvya	60.5%	35.4%	2.6%	1.6%
	Muyinga	89.3%	6.0%	2.0%	2.7%
	Mwaro	93.3%	4.5%	2.2%	0.0%
	Ngozi	59.6%	38.4%	1.0%	1.0%
	Rumonge	81.3%	13.9%	4.2%	0.6%
	Rutana	28.9%	68.0%	1.0%	2.1%
	Ruyigi	43.2%	56.3%	0.5%	0.0%
Sex of HH head	Female	66.5%	30.3%	2.3%	0.9%
	Male	67.9%	28.0%	2.6%	1.5%
Area category:	Rural	68.2%	28.1%	2.4%	1.3%
	Urban	52.0%	34.7%	8.2%	5.1%
	Total	67.7%	28.3%	2.6%	1.4%

Annexure-24 Cultivation by gender, CFSVA 2023

Category	Area	Both	Men	Women
Province	Bururi	80.9%	6.5%	12.6%
	Ruyigi	76.3%	3.8%	20.0%
	Ngozi	69.9%	1.9%	28.2%
	Cibitoke	69.6%	4.6%	25.8%
	Cankuzo	68.5%	2.4%	29.1%
	Karusi	66.6%	1.6%	31.8%
	Makamba	66.2%	4.3%	29.5%
	Rutana	62.1%	4.4%	33.6%
	Muyinga	60.5%	2.2%	37.3%
	Rumonge	60.4%	3.6%	36.0%
	Bubanza	58.2%	1.9%	39.8%
	Muramvya	55.5%	2.0%	42.5%
	Bujumbura rural	55.1%	2.7%	42.2%
	Gitega	52.6%	2.4%	45.0%
	Mwaro	52.3%	4.5%	43.2%
	Kayanza	49.8%	3.6%	46.5%
	Kirundo	49.2%	18.3%	32.5%
	Bujumbura mairie	45.9%	28.4%	25.7%
Sex of HH head	Female	8.5%	2.6%	88.9%
	Male	72.7%	4.6%	22.7%
Area category:	Rural	62.4%	4.0%	33.6%
	Urban	48.6%	11.8%	39.6%
	Total	61.9%	4.3%	33.8%

Annexure-25 Farming by Children below 18 years of age, CFSVA 2023

Category	Area	NO	YES
Province	Ngozi	44.1%	55.9%
	Bujumbura rural	50.7%	49.3%
	Kayanza	53.5%	46.5%
	Bubanza	56.0%	44.0%
	Makamba	58.8%	41.2%
	Gitega	60.1%	39.9%
	Bururi	61.5%	38.5%
	Muramvya	62.3%	37.7%
	Rutana	63.4%	36.6%
	Karusi	64.0%	36.0%
	Rumonge	64.8%	35.2%
	Mwaro	65.7%	34.3%
	Ruyigi	67.8%	32.2%
	Kirundo	68.6%	31.4%
	Muyinga	71.3%	28.7%
	Cankuzo	79.0%	21.0%
	Cibitoke	79.1%	20.9%
	Bujumbura mairie	86.5%	13.5%
Sex of HH head	Female	54.2%	45.8%
	Male	65.2%	34.8%
Area category:	Rural	62.7%	37.3%
	Urban	79.3%	20.7%
	Total	63.3%	36.7%

Annexure-26 What is your household's main source of borrowing in the last 6 months?

Category	Area	Bank	Credit Union	Deposit of property document for loan	Family/ friends in Burundi	Family/ friends outside Burundi	Money Lender	Other	Other microfinance institutions	Shopkeeper/ businessman	VISACA (village savings and credit association)
Province	Bubanza	1.4%	21.9%	0.3%	44.1%	1.0%	1.4%	0.0%	1.4%	6.6%	21.9%
	Bujumbura mairie	13.1%	4.2%	0.3%	55.8%	0.9%	1.8%	5.1%	2.1%	8.1%	8.7%
	Bujumbura rural	0.0%	21.7%	0.0%	23.6%	0.9%	1.6%	0.0%	0.0%	3.1%	49.1%
	Bururi	11.2%	31.5%	0.7%	43.4%	1.4%	6.3%	0.7%	2.1%	0.7%	2.1%
	Cankuzo	2.0%	53.5%	1.0%	32.3%	0.0%	2.5%	0.5%	1.5%	3.0%	3.5%
	Cibitoke	0.9%	10.2%	0.0%	53.6%	0.3%	0.0%	0.0%	0.0%	17.5%	17.5%
	Gitega	3.8%	47.6%	0.0%	25.3%	0.0%	0.0%	0.5%	2.4%	6.5%	14.0%
	Karusi	0.0%	70.0%	0.0%	24.5%	0.6%	0.3%	0.0%	0.0%	0.3%	4.2%
	Kayanza	0.7%	70.0%	0.0%	23.8%	0.7%	0.4%	0.4%	2.9%	0.7%	0.4%
	Kirundo	0.7%	33.8%	0.4%	42.2%	0.4%	7.3%	3.6%	1.1%	1.1%	9.5%
	Makamba	2.3%	26.4%	0.0%	50.4%	0.8%	0.0%	0.0%	1.6%	2.3%	16.3%
	Muramvya	2.6%	25.0%	0.0%	35.8%	1.3%	0.9%	2.2%	3.9%	3.4%	25.0%
	Muyinga	1.1%	44.9%	0.4%	20.6%	0.4%	4.4%	1.5%	0.7%	1.1%	25.0%
	Mwaro	3.1%	60.2%	0.0%	13.6%	0.0%	3.1%	0.7%	2.0%	0.3%	17.0%

	Ngozi	1.2%	66.5%	0.4%	10.8%	0.0%	1.2%	0.4%	1.2%	3.1%	15.4%
	Rumonge	5.8%	16.9%	0.4%	46.5%	1.2%	0.4%	1.2%	2.3%	0.4%	25.0%
	Rutana	1.8%	25.3%	0.4%	41.9%	2.9%	0.7%	0.7%	2.5%	3.2%	20.6%
	Ruyigi	0.4%	61.5%	0.0%	30.2%	1.1%	3.0%	0.0%	0.4%	3.4%	0.0%
Sex of HH head	Female	0.9%	37.7%	0.1%	35.5%	0.8%	1.8%	0.9%	0.6%	5.3%	16.4%
	Male	3.1%	38.4%	0.2%	33.5%	0.7%	1.8%	1.0%	1.7%	3.8%	15.8%
Area category:	Rural	1.6%	41.6%	0.2%	31.8%	0.7%	1.9%	0.7%	1.2%	3.6%	16.6%
	Urban	12.7%	10.7%	0.4%	50.1%	0.8%	1.2%	3.5%	3.8%	7.1%	9.8%
	Total	2.8%	38.3%	0.2%	33.8%	0.7%	1.8%	1.0%	1.5%	4.0%	15.9%

References