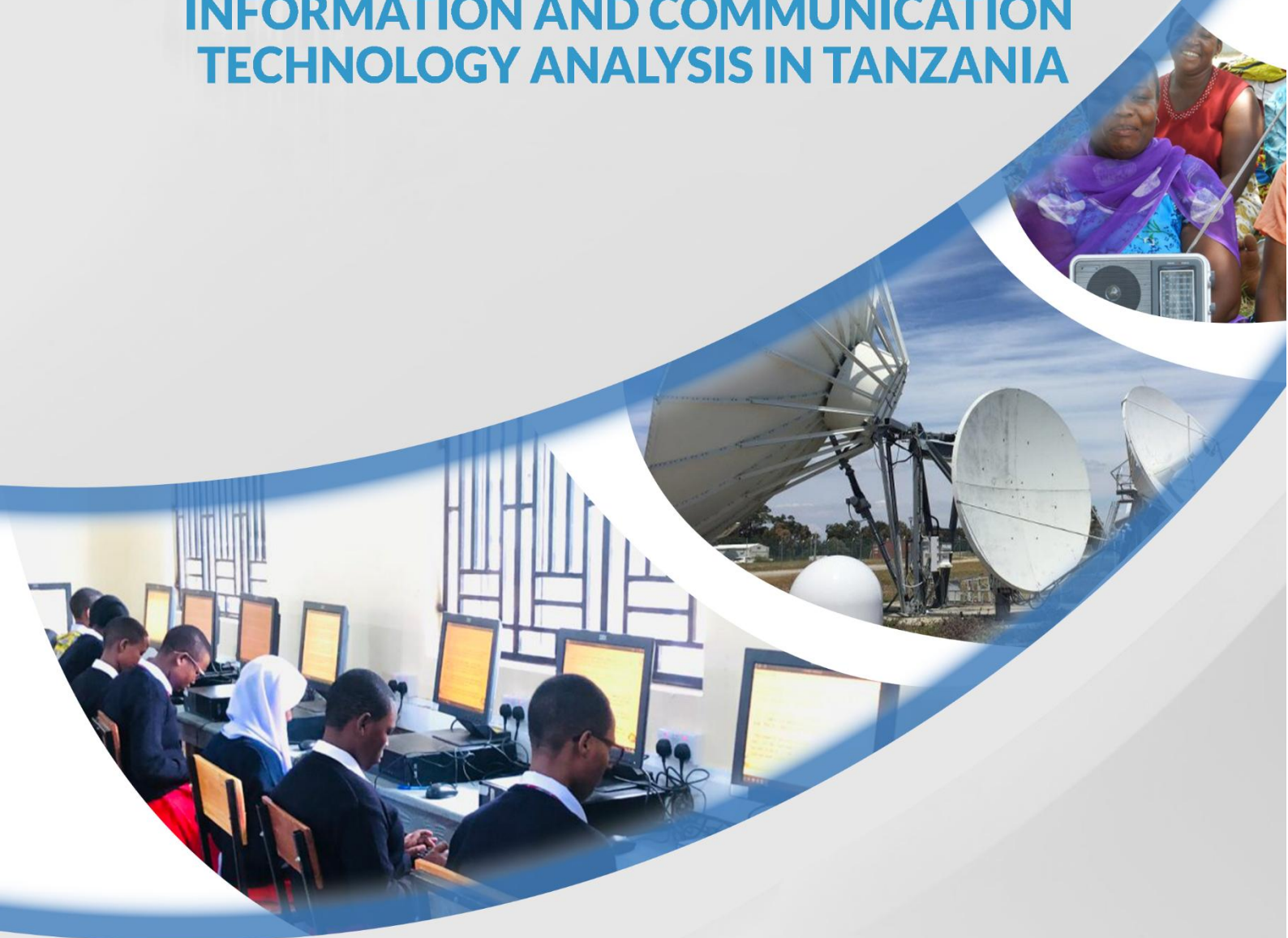




INFORMATION AND COMMUNICATION TECHNOLOGY ANALYSIS IN TANZANIA



November, 2025



The United Republic of Tanzania

Information and Communication Technology Analysis in Tanzania

National Bureau of Statistics
Ministry of Finance and Planning
Dodoma

and

Office of the Chief Government Statistician
Presidents' Office – Finance and Planning
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Preface

The 2022 Population and Housing Census (PHC) for the United Republic of Tanzania was conducted with a reference date of midnight between August 22 and 23, 2022. This marked both the sixth census since the Union of Tanganyika and Zanzibar in 1964, and the first digital census in Tanzania's history. The previous censuses took place in 1967, 1978, 1988, 2002, and 2012. The Sixth Phase Government of Tanzania, led by Her Excellency Dr. Samia Suluhu Hassan, along with the Eighth Phase Government of Zanzibar, under Dr. Hussein Ali Mwinyi, fulfilled their obligation to conduct the 2022 PHC in accordance with the United Nations Principles and Recommendations for Population and Housing Census. Their commitment and support throughout the census implementation deserve our gratitude.

The Government of the United Republic of Tanzania, through the Ministry of Finance in collaboration with the National Bureau of Statistics (NBS) and the Office of the Chief Government Statistician in Zanzibar (OCGS), successfully conducted the 2022 Population and Housing Census (PHC) in accordance with the Statistics Act Cap 351 and international standards set by the United Nations. This marked Tanzania's first fully digital census, utilizing advanced ICT tools for mapping, enumeration, data transmission, and processing.

The results of the 2022 PHC informs integrated planning, resource allocation, and monitoring of key development frameworks, including the Tanzania and Zanzibar Development Visions 2050, the Third National Five-Year Development Plans, regional strategies such as the EAC and SADC Visions 2050, and global agendas like the African Development Agenda 2063 and the UN Sustainable Development Goals (Agenda 2030). Census data will also support calculation of vital indicators such as literacy, maternal and infant mortality, and unemployment rates.

The "Information and Communication Technology Analysis in Tanzania" monograph, is the nineteenth in a series of significant publications related to the 2022 PHC. Major reports produced so far include the Administrative Units Population Distribution Reports, Age and Sex Reports, the Tanzania Basic Demographic and Socio-economic Profile, Ripoti ya Idadi ya Watu katika Majimbo ya Uchaguzi (Constituency Population Distribution Reports) in two volumes for the United Republic of Tanzania and Tanzania Zanzibar and other Thematic Reports.

The main purpose of the Information and Communication Technology (ICT) Monograph is to provide an in-depth analysis of households and individual ownership and use of ICT equipment notably mobile phones (both smart and non-smart), computers (desktops and

laptops) and use of internet across social and economic dimensions, covering aspects like education, occupation and disability, as well as main mode of electronic waste disposal for households.

We extend sincere appreciation to all government leaders, including Ministers, Members of Parliament, Members of the House of Representatives, Councillors/Sheha, and the Regional and District Census Committees. Special thanks go to Census Coordinators, Supervisors, Enumerators, local leaders, and all respondents for their active participation.

We are deeply grateful to our development partners United Nations Population Fund (UNFPA), the World Bank (WB), the United Nations Children's Fund (UNICEF), UN-Women, the International Organization for Migration (IOM), the International Labour Organization (ILO), the United States Agency for International Development (USAID), the Foreign, Commonwealth and Development Office (FCDO), the United States Census Bureau (USCB), the Republic of South Korea, the People's Republic of China, and others for their generous support in equipment, training, expertise and funding. Special recognition is given to Honourable Anne Semamba Makinda and Honourable Ambassador Mohamed Haji Hamza for their exemplary leadership as Census Commissars.

Finally, We would like to extend our heartfelt gratitude to all the experts who contributed their time and effort to this report, including Dr. Rutasha Dadi, the consultant in producing this report; Ms. Mulhat Omar Saleh, Lead Author; Dr. Ruth Davison Minja, Director of Population Census and Demographic Statistics; Fahima Mohamed Issa, Director of the Social Statistics Department, OCGS; Seif Ahmad Kuchengo, Manager of Population Census and Vital Statistics; Abdul-majid Jecha Ramadhan, Zanzibar Census Coordinator; Steven Lwendo, IT Expert for data processing; and the dedicated National Census Technical Team along with all the statisticians, demographers, IT specialists, and GIS officers. Their commitment played a crucial role in the success of producing this Thematic report.



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Executive Summary

This Information and Communication Technology (ICT) Analysis presents findings from the 2022 Population and Housing Census (PHC) on ICT ownership and usage among individuals and households in Tanzania. It examines access to mobile phones, computers, radios, televisions, and the internet, disaggregated by sex, residence, age, education, occupation, and disability. The report highlights Tanzania's digital transformation, persistent divides in access and use, and the implications for inclusive and sustainable development.

Chapter one presents a brief background information, rationale and objectives for the ICT analysis report based on the 2022 Tanzania Population and Housing Census. The ICT monograph contributes to computing indicators that measure progress in achieving Goal 9 of the Sustainable Development Goals 2030. Specifically, it contributes to measuring universal access to information including ownership and use of ICT equipment (i.e., television, radio and computers). The report is therefore vital for monitoring implementation of the Tanzania Five-Year Development Plan 2021/22 – 2025/26 in line with goal No.9 of the SDG, individuals who own and use mobile phones, and the proportion of individuals using the internet by 2030. Measurement of trends is not presented due to the fact that the data collected in the 2002, 2012 and 2022 censuses are not directly comparable, although there is an indication that ownership of ICT equipment is increasing over time except for radios and landline telephones.

Chapter two Mobile phones remain the most widely owned ICT devices in Tanzania. Nationally, 77.5% of individuals aged four years and above own non-smart phones, 21.6% own both smart and non-smart phones, and only 0.9% own smart phones alone. Ownership patterns show Zanzibar ahead of the mainland in smartphone penetration (1.9%) and dual ownership (40.2%), reflecting an emerging digital transition.

Chapter three provides a general overview of internet usage in Tanzania based on the 2022 Population and Housing Census, with notable differences between demographic and socioeconomic groups. Nationally, only 14.7% of people aged four years and above use the internet, with significant differences between urban (27.3%) and rural (7.7%) areas and higher usage among men (15.8%) compared with women (13.6%). Regional differences are also noticeable, with Dar es Salaam and Mjini Magharibi leading in usage, while rural regions like Simiyu and Rukwa lag behind. With a persistent gender gap across all age groups, young adults, especially those between the ages of 25 and 29, use the internet the most (29.9%), and their usage decreases drastically as they get older.

Chapter four presents information on ownership and use of computers by type of computer, place of residence, educational attainment, type of occupation and disability for individuals aged four years and above. Overall 2.4 percent of individuals aged four years and above own computers. Ownership of computers is higher in urban (4.3%) than in rural areas (1.4%). Higher proportions of ownership of computers among individuals aged four years and above are observed among the youth (age 20-34) for both males and females with males having higher proportions than females across all age groups. Furthermore, 41.9 percent of individuals aged four years and above using computers have attained a university education. Persons with a seeing disability who use computers and have attained a university education constitute 45.8 percent. Relatively high proportions of persons with disabilities using computers are engaged in agriculture and fishery activities.

Chapter five at the household level, mobile phones are the most widely owned ICT asset (85.3%), followed by radios (38.7%) and televisions (27.3%). Only 4.8% of households own computers or laptops, while landline ownership has become negligible. Urban households are more likely than rural households to own all ICT equipment, particularly televisions and computers. Gender differences are also pronounced: male-headed households record significantly higher ownership across all ICT assets, with the widest gap observed in computer/laptop ownership.

Rural–urban disparities in ICT access remain significant. Urban households are far more likely to own televisions (43.2% vs. 16.9%) and computers/laptops (9.1% vs. 1.9%) compared to rural households. Urban residents also engage more in learning (17.0% vs. 6.0%), online business (7.1% vs. 2.4%), and mobile financial services (64.5% vs. 47.8%). In contrast, rural communities rely more narrowly on ICT for basic communication, reflecting limited integration into digital services.

Gender inequalities in ICT access are evident. Male-headed households are more likely to own ICT devices, including radios, televisions, computers, and mobile phones, than female-headed households. The widest gap is in computer ownership, where male-headed households account for 73.0% compared to 27.0% for female-headed households. These gaps highlight structural and economic barriers limiting women's participation in the digital economy.

ICT waste disposal is dominated by unsafe practices. The majority of households dispose of e-waste by mixing it with general refuse (72.1% in urban and 52.1% in rural areas), or by burning or burial. Only a small fraction relies on formal collection systems, underscoring the urgent need for sustainable e-waste management policies and infrastructure.

Chapter six presents the Summary, Conclusions, Policy Implications and Policy Recommendations.

Summary of Key ICT Indicators, 2022 PHC

Indicator	Tanzania		Mainland Tanzania		Tanzania Zanzibar	
	Number	Percent	Number	Percent	Number	Percent
Ownership of Mobile Phone (Individuals 4 years and above)						
Smart-Phones	261,498	0.9	243,238	0.9	18,260	1.9
Non-Smart-Phones	22,302,992	77.5	21,739,905	78.1	363,087	57.9
Both Smart and Non-smart Phones	6,228,856	21.6	5,837,843	21.0	391,013	40.2
Ownership of Computer (Individuals 4 years and above)						
Desktop	246,897	19.1	237,959	19.2	8,938	20.3
Laptop	869,328	59.0	827,182	59.0	42,146	63.0
Both Laptop and Desktop	179,603	21.9	171,658	21.8	7,945	16.7
Usage of Mobile phone by Occupation (Individuals 5 years and above)						
Legislators Administrators and Managers	97,563	0.3	86,454	0.3	11,109	1.1
Professionals	369,709	1.2	344,098	1.1	25,611	2.5
Technicians and Associate Professionals	477,001	1.5	448,165	1.5	28,836	2.8
Clerks	77,596	0.2	70,821	0.2	6,775	0.7
Service Workers and Shop Sales Workers	563,934	1.8	517,996	1.7	45,938	4.4
Agricultural and Fishery Workers	1,349,486	4.3	1,317,773	4.3	531,713	3.1
Craft and Related Workers	815,986	2.6	764,392	2.5	51,594	5.0
Plant and Machine Operators and Assemblers	104,817	0.3	100,704	0.3	4,113	0.4
Elementary Occupations	13,228,31	4.2	1,229,347	4.0	93,484	9.0
Usage of Smart Phone by Education Attained (Individuals 4 years and above)						
Pre Primary	1,475	0.0	1,326	0.0	149	0.0
Primary	1,897,861	6.0	1,873,776	6.1	24,085	2.3
Post Primary Training	24,156	0.1	23,848	0.1	308	0.0
Pre-Form One	2,158	0.0	1,624	0.0	534	0.1
Secondary	1,940,914	6.1	1,734,974	5.7	205,940	19.8
Post Secondary Training	182,464	0.6	179,857	0.6	2,607	0.3
University & Other Related	1,148,496	3.6	1,093,170	3.6	55,326	5.3
Special Education	24	0.0	24	0.0	0	0.0
None/Never Attended	0	0.0	0	0.0	0	0.0
Usage of Non-smart Phones by Education Attained (Individuals 4 years and above)						
Pre Primary	6,273	0.0	5,946	0.0	327	0.0
Primary	12,775,180	40.3	12,710,013	41.5	65,167	6.3
Post Primary Training	57,334	0.2	56,871	0.2	463	0.0
Pre-Form One	5,701	0.0	3,931	0.0	1,770	0.2
Secondary	4,111,973	13.0	3,719,993	12.1	391,980	37.8
Post Secondary Training	239,648	0.8	236,219	0.8	3,429	0.3
University & Other Related	1,314,019	4.1	1,250,536	4.1	63,483	6.1
Special Education	181	0.0	179	0.0	2	0.0
None/Never Attended	0	0.0	0	0.0	0	0.0
Usage of Computer by Education Attained (Individuals 4 years and above)						
Pre Primary	580	0.0	546	0.0	34	0.0
Primary	384,745	17.7	382,282	18.4	2,463	2.5
Post Primary Training	4,406	0.2	4,335	0.2	71	0.1
Pre-Form One	507	0.0	422	0.0	85	0.1
Secondary	317,529	14.6	289,059	13.9	28,470	28.9
Post Secondary Training	51,685	2.4	50,913	2.5	772	0.8
University & Other Related	548,282	25.2	521,065	25.1	27,217	27.6
Special Education	7	0.0	7	0.0	0	0.0
None/Never Attended	0	0.0	0	0.0	0	0.0

Indicator	Tanzania		Mainland Tanzania		Tanzania Zanzibar	
	Number	Percent	Number	Percent	Number	Percent
Use of Internet by Occupation (Individuals 4 years and above)						
Legislators Administrators and Managers	99,980	1.3	88,584	1.2	11,396	2.4
Professionals	378,077	4.8	351,816	4.7	26,261	5.6
Technicians and Associate Professionals	495,301	6.2	465,550	6.2	29,751	6.3
Clerks	80,141	1.0	73,179	1.0	6,962	1.5
Service Workers and Shop Sales Workers	588,779	7.4	541,557	7.3	47,222	10.0
Agricultural and Fishery Workers	1,595,793	20.1	1,561,232	20.9	34,561	7.3
Craft and Related Workers	897,168	11.3	843,400	11.3	53,768	11.4
Plant and Machine Operators and Assemblers	109,708	1.4	105,473	1.4	4,235	0.9
Elementary Occupations	1,444,204	18.2	1,346,812	18.0	97,392	20.7
Usage of Internet by Education Attained (Individual 4 years and above)						
Pre Primary	1,772	0.0	1616	0.0	156	0.0
Primary	2,177,742	27.4	2,152,532	28.8	25,210	5.3
Post Primary Training	25,188	0.3	24,873	0.3	315	0.1
Pre-Form One	2,314	0.0	1739	0.0	574	0.1
Secondary	2,018,436	25.4	1,806,219	24.2	212,217	45.0
Post Secondary training	185,918	2.3	183,245	2.5	2673	0.6
University & Other Related	1,166,801	14.7	1,110,240	14.9	56,561	12.0
Special Education	29	0.0	29	0.0	0	0.0
None/Never Attended	0	0.0	0	0.0	0	0.0
Percentage of Households Owning ICT Equipment by Place of Residence and Methods Used to Dispose ICT Waste						
Mixed with other Refused	8,492,661	60.0	8,210,812	59.6	281,849	75.0
Collected by Government	179,410	1.3	174,752	1.3	4,658	1.2
Collected by Private Company	67,265	0.5	66,090	0.5	1,175	0.3
Dumped in the compound/street	613,057	4.3	595,149	4.3	17,908	4.8
Dumped in the Latrine	64,967	0.5	64,255	0.5	712	0.2
Burnt in open/pit	1,879,991	13.3	1,848,403	13.4	31,588	8.4
Buried	1,973,638	13.9	1,951,773	14.2	21,865	5.8
Sold/Giving as Gift	613,028	4.3	604,418	4.4	8,610	2.3
Collected by individual (s)	268,786	1.9	261,323	1.9	7,463	2.0
Percentage of Individuals Aged Four and Above Using ICT Equipment by Type of Use of ICT Equipment						
Communication	30,235,927	89.4	29,245,376	89.4	990,551	87.2
Search/Receive Information	12,420,472	36.7	11,894,648	36.4	525,824	46.3
Online Business	1,469,968	4.3	1,414,575	4.3	55,393	4.9
Learning	3,578,814	10.6	3,396,830	10.4	181,984	16.0
Playing Games/ Entertainment	4,508,076	13.3	4,244,430	13.0	263,646	23.2
Sending and Receiving Money	18,512,326	54.7	17,967,529	54.9	544,797	47.9
Household owning ICT Equipment by type of ICT Equipment owned						
Radio	5,478,581	38.7	5,320,873	38.6	157,708	42.0
Landline	153,986	1.1	149,518	1.1	4,468	1.2
Mobile Phones	12,067,877	85.3	11,709,013	85.0	358,864	95.5
Television	3,868,700	27.3	3,696,477	26.8	172,223	45.8
Computer/Laptop	676,907	4.8	640,597	4.6	36,310	9.7

Table of Contents

Preface.....	i
Executive Summary	iii
Summary of Key ICT Indicators, 2022 PHC	vi
List of Tables.....	x
List of Figures.....	xii
List of Maps.....	xiii
Abbreviation and Acronyms	xiv
Concepts and Definitions	xv
Chapter One.....	1
Introduction	1
1.1 Background	1
1.2 Rationale for the Monograph.....	1
1.3 General Trend	2
1.4 Objective of the Monograph	2
1.5 Scope of the Monograph.....	3
1.6 Data Source and Methodology.....	3
Chapter Two	5
Ownership and Use of Mobile Phones for Individuals	5
2.1 Introduction	5
2.2 Ownership of Mobile Phones	6
2.2.1 Individuals' Ownership of Mobile Phones by Place of Residence	6
2.2.2 Wealth Quantile.....	10
2.2.3 Individual Ownership of Mobile Phone by Type of Mobile Phone.....	12
2.2.4 Individual Ownership of Mobile Phone by Age Group and Sex	17
2.2.5 Ownership of Mobile Phone by Type of Disability	20
2.3 Use of Mobile Phone at the Individual Level	20
2.3.1 Use of Mobile Phone by Age and Sex.....	21
2.3.2 Use of Mobile Phone by Place of Residence	24
2.3.3 Use of Mobile Phone by Type of Occupation	27
2.3.4 Use of Mobile Phone by Occupation and Age Group.....	29
2.3.5 Use of Mobile Phone by Level of Education Attainment.....	31
2.3.6 Use of Mobile Phone by Type of Disability	36
2.4 Conclusion	37
Chapter Three.....	39
Use of the Internet for Individuals	39
3.1 Introduction	39
3.2 Use of the Internet.....	40
3.2.1 Use of Internet and Age Distribution	43
3.2.2 Use of Internet by Education Attainment.....	44
3.2.3 Use of Internet by Level of Education Current Attending	47

3.2.4 Use of Internet by Occupation	48
3.2.5 Use of the Internet by Type of Disability and Sex.....	50
3.2.6 Use of the Internet Among Persons with Disability by Level of Education Attainment.....	51
3.3 Conclusion	51
Chapter Four.....	52
Computer Ownership and Usage at the Individual Level	52
4.1 Introduction	52
4.2 Ownership of Computer	53
4.2.1 Ownership of Computers by Type of Computer	53
4.2.2 Computer Ownership by Type of Residence.....	53
4.2.3 Computer Ownership by Age and Sex Distribution	57
4.3 Use of Computer at Individual Level	59
4.3.1 Use of Computer by Residence	59
4.3.2 Use of Computer by Type of Computer, Sex and Age	62
4.3.3 Use of Computers by Education.....	63
4.3.4 Use of Computer by Level of Education Attained and Type of Disability.....	65
4.3.5 Use of Computers by Type of Occupation.....	66
4.3.6 Use of Computer by Type of Occupation and Disability	68
4.4 Conclusion	70
Chapter Five	71
Ownership and Main Disposal Modes of ICT Equipment	71
5.1 Introduction	71
5.2 Household Owning ICT Equipment by Type	72
5.3 Household Ownership of Radio Across Zones.....	76
5.4 Household Ownership of ICT Equipment by Type of Headship	77
5.5 Trend in Household ICT Equipment Ownership by Type	81
5.6 Individual Ownership of ICT Equipment by Type of Use	84
5.6 Household Ownership of ICT Equipment by Methods of ICT Equipment Disposal	89
5.7 Conclusion	91
Chapter Six	92
Summary, Conclusion, Policy Implications and Policy Recommendations	92
6.1 Introduction	92
6.2 Summary of Key Findings	92
6.3 Conclusion	93
6.4 Policy and Practical Recommendations	94
References	95
Appendices	97

List of Tables

Table 2.1: Percentage of Individuals Aged Four Years and Above Owning of Mobile Phones by Sex, Place of Residence and Regions; Tanzania, 2022 PHC	10
Table 2.2: Percentage of Mobile Phone Ownership with Wealth Quantile, Place of Residence and Region; Tanzania, 2022 PHC	12
Table 2.3: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type and Region; Tanzania, 2022 PHC	14
Table 2.4: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type, Sex and Age Group; Tanzania, 2022 PHC	19
Table 2.5: Percentage of Persons Aged Four Years and Above with Disability Owning Mobile Phones by Sex and Type of Disability; Tanzania, 2022 PHC	20
Table 2.6: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex and Age Group; Tanzania, 2022 PHC	23
Table 2.7: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex, Gender Gap, Place of Residence and Region; Tanzania, 2022 PHC	26
Table 2.8: Percentage of Individuals Aged Five Years and Above Using Mobile Phones by Type of Occupation and Region; Tanzania, 2022 PHC.....	28
Table 2.9: Percentage of Individuals Aged Five Years and Above Using Mobile Phones by Type of Occupation and Age Group; Tanzania, 2022 PHC	30
Table 2.10: Percentage of Individuals Aged Four Years and Above Using Smart Phones by Level of Education Attained and Region; Tanzania, 2022 PHC	32
Table 2.11: Percentage of Individuals Aged Four years and Above Using No-smart Phones by Level of Education Attained and Region; Tanzania, 2022 PHC	35
Table 2.12: Percentage of Persons Aged Four Years and Above Using Mobile Phone by Type of Disability and Level of Education Attained; Tanzania, 2022 PHC.....	37
Table 2.13: Percentage of Persons Aged Five Years and Above Using Mobile Phone by Type of Disability and Occupation; Tanzania, 2022 PHC	37
Table 3.1: Percentage of Persons Aged Four Years and Above Using Internet by Sex, Place of Residence and Region; Tanzania, 2022 PHC.....	42
Table 3.2: Percentage of Individuals Aged Four Years and Above Using Internet by Sex and Group Age; Tanzania, 2022 PHC	44
Table 3.3: Percentage of Individuals Aged Four Year and Above using Internet by Level of Education Attained and Place of Residence, Tanzania, 2022 PHC	46
Table 3.4: Percentage of Individuals Aged Four Year and Above Who have Completed School are Using Internet Sex and Level of Education Attained: Tanzania, 2022 PHC	47

Table 3.5:	Table Percentage of Individuals Aged Five Year and Above Using Internet by Type of Occupation and Region; Tanzania, 2022 PHC.....	49
Table 3.6:	Percentage of Persons with Disabilities Using Internet by Type of Disability and Education Attainment; Tanzania, 2022 PHC	51
Table 4.1:	Percentage of Individuals Aged Four Years and Above Owning Computers by Sex, Place of Residence and Region; Tanzania, 2022 PHC	56
Table 4.2:	Percentage of Individuals Aged Four and Above Owning Computers by Type, Sex and Age; Tanzania, 2022 PHC	58
Table 4.3:	Percentage of Individuals Aged Four Years and Above Using Computers by Type, Sex, Place of Residence and Region; Tanzania, 2022 PHC.....	61
Table 4.4:	Percentage of Individual Age Four Years and Above Using Computer by Type, Sex and Age; Tanzania, 2022 PHC.....	63
Table 4.5:	Percentage of Individuals Aged Four Years and Above Using Computers by Educational Level Attained and Region; Tanzania, 2022 PHC	65
Table 4.6:	Percentage of individuals Aged Four Years and Above With Disability Using Computer by Level of Education Attained and Type of Disability; Tanzania, 2022 PHC	66
Table 4.7:	Percentage of Individuals Aged Five Years and Above Using Computers by Age and Type of Occupation; Tanzania, 2022 PHC	67
Table 4.8:	Percentage of Persons Aged Five Years and Above Using Computers by Type of Disability and Occupation, Tanzania, 2022 PHC	69
Table 5.1:	Urban–Rural ICT Ownership Gap (in percentage points), Tanzania, 2022 PHC	72
Table 5.2:	Percentage of Households Owning ICT equipment by Type of Equipment, Place of Residence and Region; Tanzania, 2022 PHC.....	74
Table 5.3:	Percentage of Households Owning Radios by Zone; Tanzania, 2022 PHC	77
Table 5.4:	Percentage of Households Owning ICT Equipment by Type of Headship, Place of Residence and Region; Tanzania, 2022 PHC	80
Table 5.5:	Percentage of Households Owning ICT Equipment by Place of Residence and Type of Equipment; Tanzania, 2002, 2012 and 2022 PHCs	82
Table 5.6:	Percentage of Individuals Aged Four Years and Above Using ICT Equipment by Type of Use, Sex, Place of Residence and Region; Tanzania, 2022 PHC.....	86
Table 5.7:	Percentage of Individuals Aged Four and Above Using ICT Equipment by Type of Use of ICT Equipment, Sex and Age Group; Tanzania, 2022 PHC.....	88
Table 5.8:	Percentage of Households Owning ICT Equipment by Place of Residence and Methods Used to Dispose ICT Waste; Tanzania, 2022 PHC	91

List of Figures

Figure 2.1: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Sex and Place of Residence; Tanzania, 2022 PHC	7
Figure 2.2: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Place of Residence and Region; Tanzania, 2022 PHC	9
Figure 2.3: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type and Place of Residence; Tanzania, 2022 PHC	13
Figure 2.4: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex and Place of Residence; Tanzania, 2022 PHC	24
Figure 3. 1: Percentage of Persons Aged Four Years and Above Using Internet by Sex; Tanzania, 2022 PHC.....	41
Figure 3.2: Internet Use Pyramid; Tanzania, 2022 PHC	43
Figure 3.3: Gender Gap in Internet Usage	44
Figure 3.4: Percentage of Individuals Age Four and Above Using Internet by Sex and Level of Education Currently Being Attended; Tanzania, 2022 PHC	48
Figure 3.5: Percentage of Persons with Disability Aged Five Years and Above Using Internet by Type of Disability and Sex; Tanzania, 2022 PHC	50
Figure 4.1: Percentage of Population Aged Four Years and Above Owning Computers by Sex and Residence; Tanzania, 2022	54
Figure 4.2: Percentage of Individuals Age Four Years and Above Using Computers by Type, Sex and Place of Residence: Tanzania, 2022 PHC	60
Figure 4.3: Percentage of Individual Age Four Years and Above Using Computer by Type and Sex; Tanzania, 2022 PHC	62
Figure 4.4: Percentage of Individuals Aged Four Years and Above Using Computers by Education Attainment; Tanzania, 2022	64

List of Maps

Map 2.1:	Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Region; Tanzania, 2022 PHC	8
Map 2.2:	Percentage of Individuals Aged Four Years and Above Owning Smartphones by Region; Tanzania, 2022 PHC	15
Map 2.3:	Percentage of Individuals Aged Four Years and Above Owning Non-smartphones by Region; Tanzania, 2022 PHC	16
Map 2.4:	Percentage of Individuals Aged Four Years and Above Owning Non-smartphones and Smartphones by Region; Tanzania, 2022 PHC.....	17
Map 4.1:	Percentage of Individuals Aged Four Years and Above Owning Computers by Region; Tanzania, 2022 PHC	55

Abbreviation and Acronyms

AM	Amplitude Modulation
CAPI	Computer-Assisted Personal Interviews
CPU	Central Processing Unit
CSEntry	Census and Survey Entry
CSPro	Census and Survey Processing System
EAs	Enumerations Ares
EOL	End-of-life
E-Waste	Electronic waste
FCDO	Foreign, Commonwealth and Development Office
FM	Frequency Modulation
GPS	Geographical Positioning System
ICT	Information and Communication Technology
ILO	International Labour Organisation
IOM	International Organisation for Migration
IP	Internet Protocol
LW	Long Wave
NBS	National Bureau of Statistics
OCGS	Office of the Chief Government Statistician, Zanzibar
PHC	Population and Housing Census
PWDs	Persons with Disabilities
SDGs	Sustainable Development Goals
SIM	Subscriber Identity Module
SMS	Short Message Service
SW	Short Wave
TBC	Tanzania Buildings Census
TV	Television
TCP/IP	Transmission Control Protocol/Internet Protocol
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USCB	United States Census Bureau
WB	World Bank
WEEE	Waste Electrical and Electronic Equipment

Concepts and Definitions

Age

Age: refers to the number of years one has lived as of their last birthday i.e., in reference to the census night.

Household Composition

Head of Household: is a person who is acknowledged as such by other household members.

Household: refers to a person or group of persons who reside in the same homestead or compound but not necessarily in the same dwelling unit, have same cooking arrangements, and are answerable to the same household head except for a collective household.

Education Attainment

Educational Attainment: refers to the highest grade completed according to the country's educational system. A grade is a stage of instruction usually covered in the course of a school year.

Disability

Disability is defined as a loss or limitation of opportunities to participate in the normal life in their community on an equal level with others due to physical, mental or social factors. All three definitions use the concept of activity limitation in defining disability rather than physical impairment.

Environmental Control

Solid waste disposal: is the collection, sorting, transport and treatment of waste as well as its storage and tipping above or burying; the transformation operations necessary for its re-use, recovery or recycling.

Electronic waste (E-waste) describes discarded electrical or electronic devices. It is also known as waste electrical and electronic equipment (WEEE) or end-of-life (EOL) electronics. Refers to discarded, recycled or refurbished electrical and electronic products.

Access and Use of Information and Communication Technology by Individuals and Households

Radio: refers to a device capable of receiving broadcast radio signals using frequencies in the FM, AM, LW and SW bands. A radio can be a standalone unit or integrated into other devices, including alarm clocks, audio players, mobile telephones or computers.

Television: refers to a device capable of receiving broadcast television signals using standard access methods, including radio frequency (over-the-air), cable, and satellite. A television set is usually a standalone unit but may be integrated into other devices, such as computers or mobile telephones.

The Internet: is a vast global network of interconnected computers and other electronic devices, allowing them to share information and communicate through a standardised set of suite of communication protocols called [Transmission Control Protocol/Internet Protocol](#) (TCP/IP). It provides access to several communication services, including the World Wide Web and carries e-mail, news, entertainment and data files, irrespective of the device used.

Landline Telephone: A landline telephone is a communication device that transmits and receives sound, typically the human voice, through physical wire or fibre optic cable connections. A mobile (cellular) telephone A mobile phone, also known as a cellphone, is a portable device that allows for voice and data communication over a wireless cellular network. Mobile phones have become essential devices in daily life, profoundly impacting how we communicate, access information, and interact with the world around us.

Smart Mobile Phone (Smartphone): Refers to a mobile phone device that performs many computer functions, typically having a touchscreen interface, broadband Internet access, and an operating system capable of running applications such as Facebook, WhatsApp or YouTube.

Non-Smartphone (Feature phone): Refers to a phone device that performs only basic functions such as making and receiving calls, sending/receiving text messages and browsing Internet.

Computer: A computer is an electronic device designed to process, store, and manipulate data according to a set of instructions known as programs. It can perform a wide range of tasks, from simple calculations to complex operations involving data analysis, graphics design, and more.

Desktop Computer: A desktop computer is a personal computing device designed for regular use at a single location. Unlike portable devices like laptops and tablets, desktop computers typically comprise separate components, including a monitor (screen), a keyboard, a mouse, and a central processing unit (CPU) housed in a tower or desktop case.

Laptop: A laptop is a portable computer that integrates all the components of a traditional desktop computer into a single compact unit. Laptops are designed for convenience and mobility, making them ideal for use in various settings, such as at home, in the office, while travelling, or in educational environments.

CHAPTER ONE

INTRODUCTION

1.1 Background

Information and Communication Technology (ICT) has become an essential part of modern life, driving innovation, communication, and economic growth worldwide. From smartphones to cloud computing, ICT tools and systems have revolutionised the way individuals, businesses, and governments operate. Furthermore, the rapid growth of ICT also presents new challenges, including issues such as cybersecurity threats, data management, and issues related to electronic waste (e-waste).

The 2022 Tanzania Population and Housing Census collected ICT information at individual and household levels. ICT information collected at the household level includes ownership of Mobile and landline phones, radio, television, computer, access to internet services and methods used by households in disposing the electronic waste. At the individual level, the ICT information collected includes ownership and use of mobile phones (both smart and non-smartphones), use of computers (laptops and desktops) as well as the type of use of mobile phones and computers. The individual ICT information was collected for persons aged four years and above.

The ICT monograph explores the role and impact of ICT in addressing global challenges, with a focus on sustainable practices and technological advancements. This monograph therefore aims to assess and understand the current level of ownership and use of ICT equipment in Tanzania and suggests how it can be used to drive socio-economic development while minimizing its negative consequences.

1.2 Rationale for the Monograph

Information and Communication Technologies (ICTs) play a key role in achieving sustainable development. By enabling innovation in education, health, governance, and economic growth, ICT supports progress across all seventeen United Nations Sustainable Development Goals (SDGs). It is especially critical to SDG 9 (Industry, Innovation and Infrastructure), which calls for universal access to information and inclusive, sustainable industrialization.

The 2022 Population and Housing Census (PHC) provided a unique opportunity to capture ICT-related information at both household and individual levels. This monograph translates those findings into evidence for:

- Measuring universal ICT access through indicators such as internet connectivity, ownership of radios, televisions, and computers, and use of mobile phones and the internet;
- Monitoring progress towards national, regional, and international frameworks, including *Dira 2050*, the Five-Year Development Plan 2021/22–2025/26, Agenda 2063, and the SDGs 2030;
- Informing strategies to bridge the digital divide, promote inclusive access, and mitigate risks such as e-waste; and
- Providing a robust evidence base for researchers, policymakers, and practitioners to advance innovation and decision-making in the ICT sector.

In doing so, the monograph strengthens the role of ICT data in guiding Tanzania's digital transformation and ensuring that no one is left behind in the transition to a knowledge-driven economy.

1.3 General Trend

The 2002 and 2022 Censuses captured information on ownership of ICT equipment however, the difference is that in the 2002 PHC the question asked whether households owned a functional radio, computer/laptop or a landline telephone on the day of enumeration. On the other hand, the 2022 Census asked about ownership or use of a radio, a mobile phone (smart or non-smart), a computer (desktop or laptop) or access to the internet in the three months prior to the census. At the individual level, no question was directed to individual household members in the 2002 Census, whereas in the 2022 Census the question was directed to all persons aged four years and above.

1.4 Objective of the Monograph

The ICT Monograph presents key indicators used to measure the use and ownership of ICT equipment. The information collected in the 2022 PHC is key in measuring achievement and progress made towards the national, regional and international development agenda and targets. The collected ICT information is therefore vital for monitoring the implementation of the Tanzania Five-Year Development Plan 2021/22 – 2025/26 in line with goal 9 of the SDG 2030. The objective of the ICT Monograph is therefore to:

1. Assessment of ICT Ownership and Use

- Provides a comprehensive picture of the current levels of ICT ownership and usage across rural and urban areas.
 - Identify gaps in access and adoption while informing strategies to harness emerging technologies and trends.
2. Support for National and Global Development Frameworks
 - Offers critical data for monitoring the progress of Tanzania's National Development Vision 2050, the Five-Year Development Plan (2020/21–2025/26), the Sustainable Development Goals (SDGs) 2030, and other related indices.
 3. Facilitate Academic and Professional Research
 - Serves as a reliable reference document for students, researchers, and professionals who wish to explore specialised areas of ICT in detail.
 - Provides evidence-based knowledge for academic study and corporate decision-making.
 4. Promotion of Innovation and Policy-Making
 - Generates actionable insights to support problem-solving, innovation, and effective policy-making in the ICT sector.
 - Strengthens the foundation for designing inclusive, technology-driven interventions that bridge the rural–urban digital divide

1.5 Scope of the Monograph

This ICT Monograph presents information on ownership and use of ICT at both household and individual levels. It highlights variations in ICT access and uses across national and regional levels, and, where possible, between rural and urban areas. At the individual level, the analysis is further disaggregated by age, sex, educational attainment, occupation, and disability status.

1.6 Data Source and Methodology

The ICT information presented in this monograph is derived from the 2022 PHC. In the first stage the mobile Geographical Positioning System Technology (GPS) was used to facilitate the demarcation of enumeration areas and the transmission of census cartographic information to the servers located at NBS/OCGS Headquarters. Mobile devices were used to collect Geographical Positioning System (GPS) coordinates for households and other points of interest (i.e., social facilities) within the enumeration area. Area maps were developed using ArcGIS software incorporating aerial photographs and satellite imagery.

In the second stage, Computer Assisted Personal Interviews (CAPI) technology was used for data collection and the transmission of data from the field to the servers in the data centre during enumeration. The mobile devices (tablets) were installed with the data capture system called CSEntry, developed using CSPro software, that runs on the Android Operating System.

The third stage involved data processing and the production of tables. The data were processed using the CSPro software. Validation checks were undertaken to ensure that all enumeration areas (EAs) were covered thereby achieving total population coverage. Outputs were generated based on administrative boundaries.

Processing of ICT-related information formed part of the broader census data management system. Data were validated to confirm complete coverage of enumeration areas, and consistency checks were undertaken to ensure accuracy. Final outputs were produced using CSPro software, generating indicators disaggregated by national, regional, rural–urban, and socio-demographic characteristics.

The ICT module included questions at both the household and individual levels. At the household level, information was collected on ownership of ICT equipment (mobile and landline phones, radios, televisions, computers), access to internet services, and methods of disposing electronic waste. At the individual level, data were collected on ownership and use of mobile phones (smart and non-smart), use of computers (laptops and desktops), and specific purposes of ICT use. Individual-level data were collected for all persons aged four years and above.

CHAPTER TWO

OWNERSHIP AND USE OF MOBILE PHONES FOR INDIVIDUALS

Key Points

- Over half (53.1%) of individuals aged four years and above in Tanzania own mobile phones.
- Ownership of mobile phones is higher in urban areas (62.1%) than rural areas (48.2%).
- Males (54.8%) are slightly more likely to own phones than females (51.5%), with a wider gap in rural areas.
- More than three quarter of individuals aged four years and above own (77.5%) and use (77.9%) non-smartphone.
- Ownership of both smart and non-smartphone (21.6%) is more common among young adults (20–29 years).
- Persons with disabilities of albinism (80.9%) and seeing (65.9%), have relatively higher percentages of mobile phone ownership, whereas persons with communication disabilities has the lowest percentage (45.3%).
- Females are more likely to use non-smartphones, whereas males are more likely to use both smart and non-smartphones.
- Youth and young adults (15–44 years) are the most users of mobile phones across all occupations.

2.1 Introduction

In today's digital era, the advancement of communication technology has significantly contributed to the rapid increase in mobile phone usage across the world. Mobile phones have become indispensable tools for communication, access to information, financial services, education, business, and entertainment, making them central to daily life in the digital age. This chapter presents information on the ownership and usage of mobile phones among individuals aged four years and above in Tanzania. It provides disaggregated data on mobile phone ownership by type, smartphones, non-smartphones, and dual ownership, as well as patterns of use across different socio-economic and demographic groups. It explores variations in ownership and



use by sex, age, educational attainment, occupation, and disability status, and highlights differences between rural and urban populations.

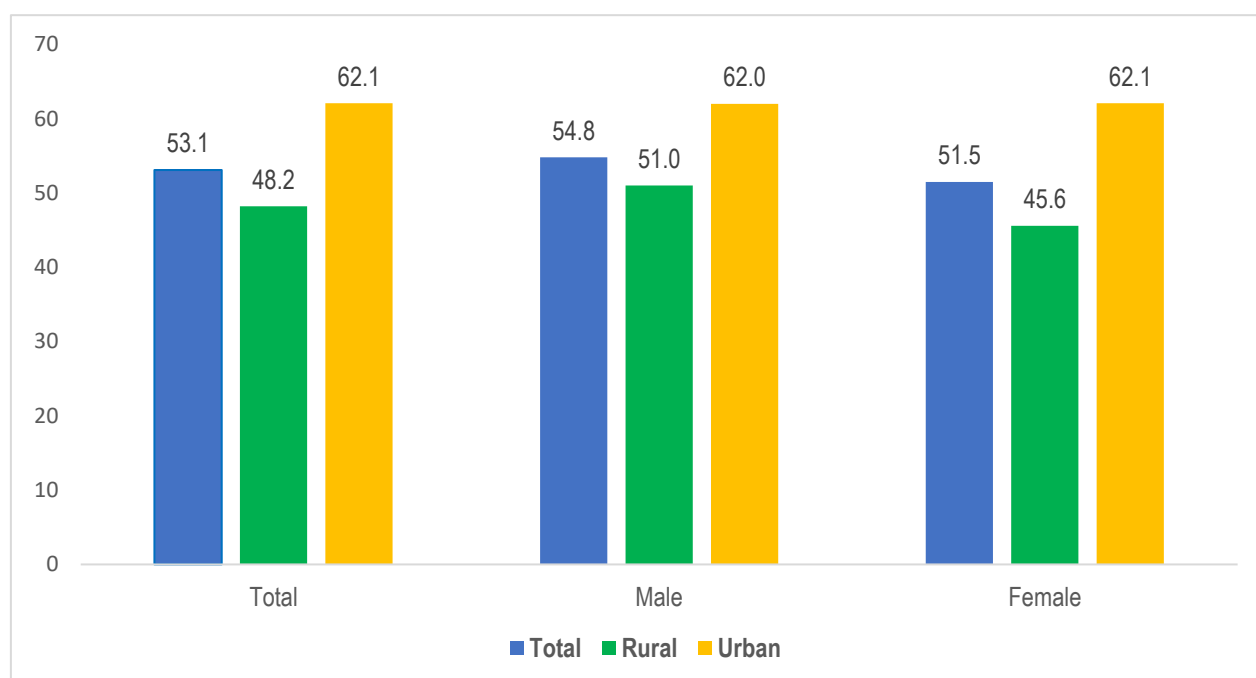
2.2 Ownership of Mobile Phones

This report applies an international definition of mobile phone ownership, which refers to an individual owning a mobile cellular device if they have possessed a phone device with at least one active SIM card for personal use (Demographic and Socio-Economic Profile Report, 2024). The ownership of mobile phones, the information was collected for individuals aged 4 years and above. This data is critical for understanding access to digital technology and can be disaggregated by demographic and geographic characteristics. Mobile phones are broadly categorised into two types: smartphones and non-smartphones. For the purposes of this report, the analysis focuses on ownership and use of smartphones, non-smartphones, and dual ownership of both types.

2.2.1 Individuals' Ownership of Mobile Phones by Place of Residence

The results in Figure 2.1 show that 53.1 percent of persons aged four years and above own a mobile phone. Ownership this is slightly higher among males (54.8%) than females (51.5%). When disaggregated by place of residence, ownership is markedly higher in urban areas (62.1% for females and 62.0% for males) compared with rural areas (45.6% for females and 51.0% for males). This points to a persistent urban-rural divide in mobile phone access between urban and rural areas, likely influenced by factors such as socio-economic status, infrastructure, and connectivity. Gender disparities are modest overall, but males is more likely than females to own mobile phones in rural settings, where access and affordability are more constrained.

Figure 2.1: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Sex and Place of Residence; Tanzania, 2022 PHC



As presented in Figure 2.2 and Map 2.1, Ownership of mobile phones varies across regions with 10 regions falling above the national average of 53.1 percent and fourteen regions falling below. The Dar es Salaam region has the highest ownership rate of mobile phone (70.4%), followed by Mjini Magharibi (63.7%) and Kilimanjaro (63.3%), regions that are more urbanised and socio-economically advantaged. By contrast, Simiyu (42.1%), Rukwa (42.4%), Kigoma (42.6%), Katavi (44.0%), and Tabora (44.3%) record the lowest levels of ownership, reflecting their predominantly rural nature and limited infrastructure. Most regions fall within the 45–60% range, indicating moderate but uneven penetration nationally.

Map 2.1: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Region; Tanzania, 2022 PHC

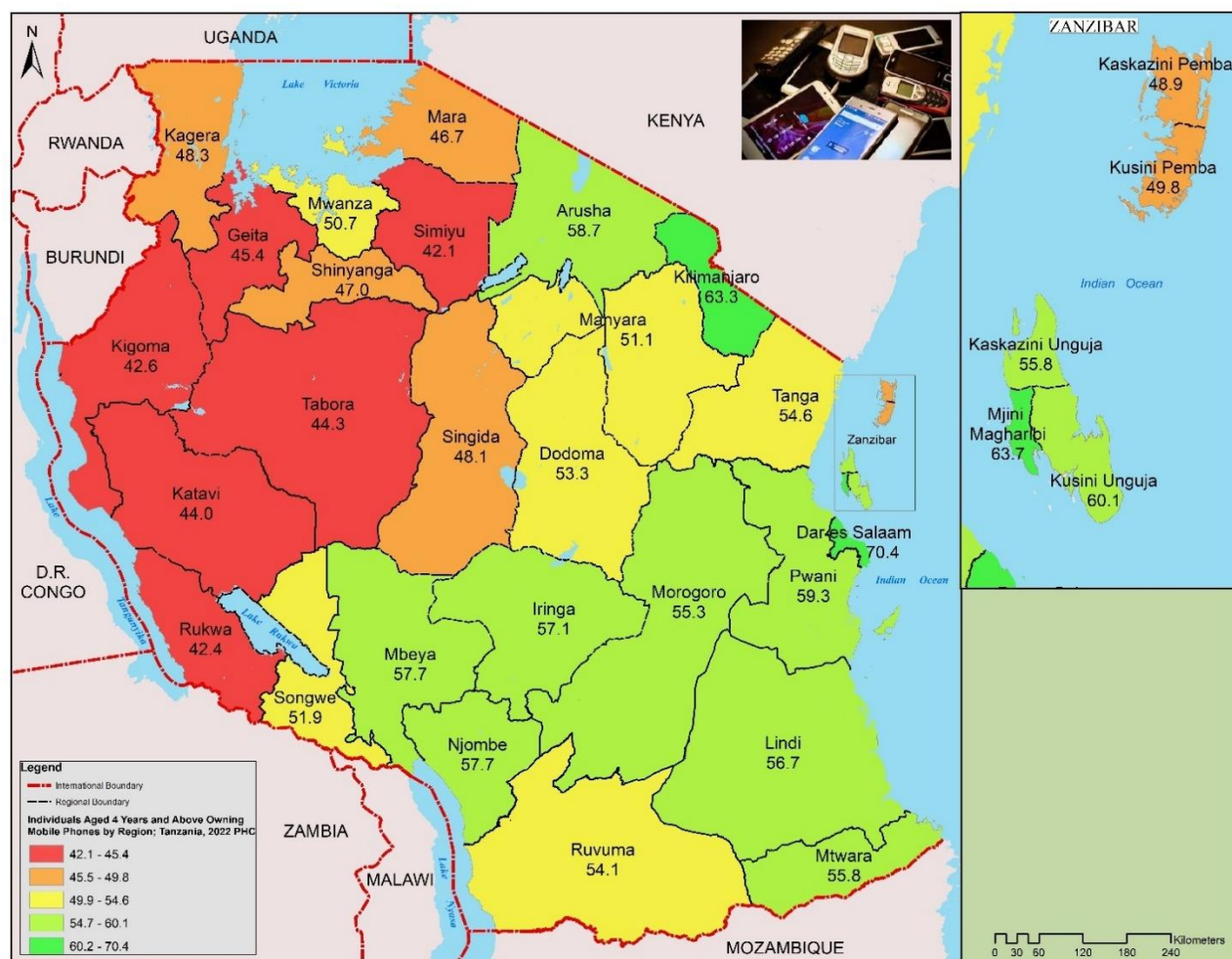
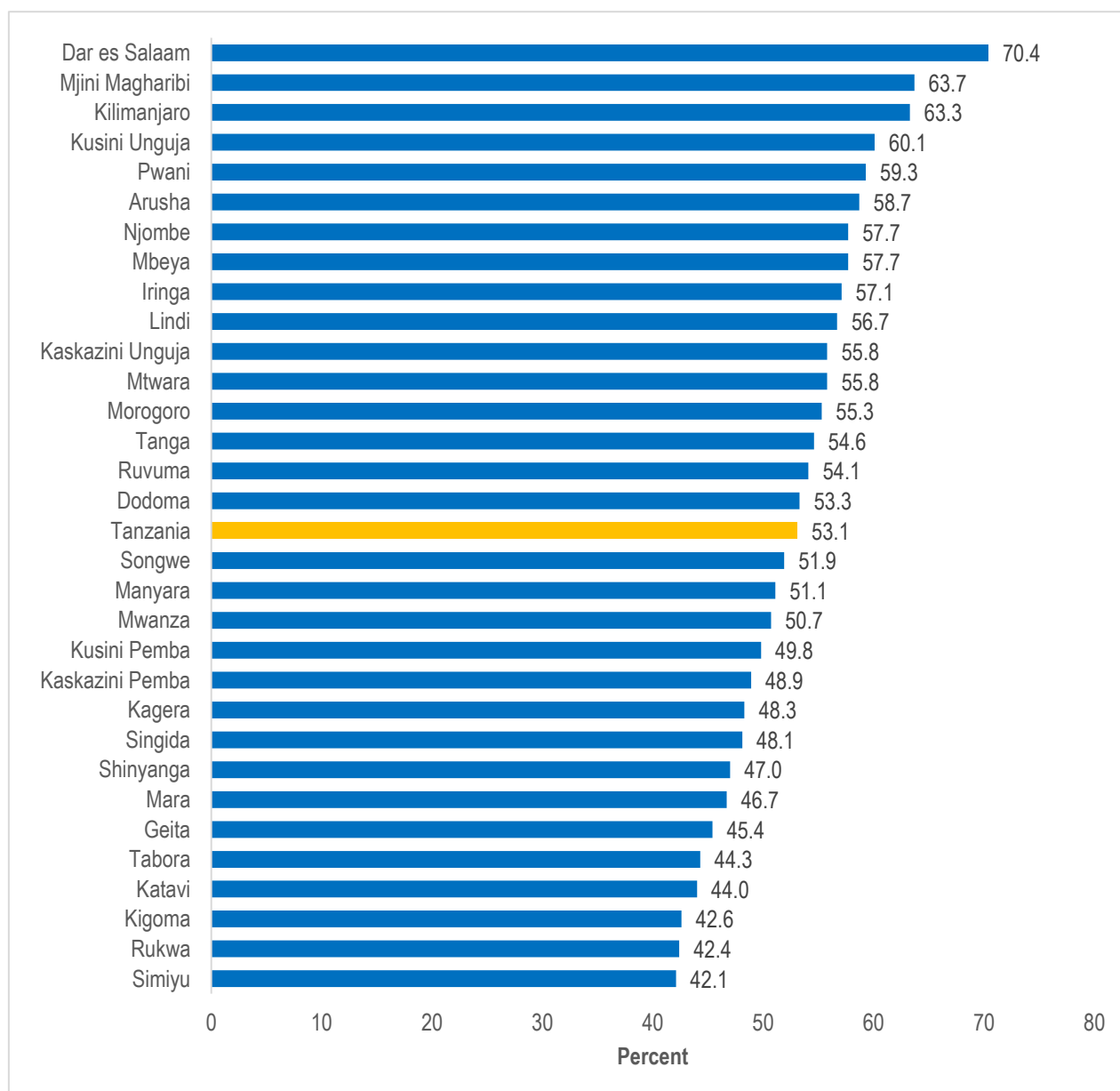


Figure 2.2: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Place of Residence and Region; Tanzania, 2022 PHC



The largest gender gap in mobile phone ownership is observed in the Rukwa Region (9.6%), followed by the Katavi (8.9%) and the Mtwara (7.8%) Regions. Regions with higher percentages of females owning mobile phones are Kilimanjaro (with a gap of 1.5 percentage points), Arusha (with a gap of 1.4 percentage points), Dar es Salaam (with a gap of 0.3 percentage points), Mjini Magharibi (with a gap of 0.2 percentage points) and Kusini Pemba (with a gap of 0.1 percentage points) (Table 2.1).

Table 2.1: Percentage of Individuals Aged Four Years and Above Owning of Mobile Phones by Sex, Place of Residence and Regions; Tanzania, 2022 PHC

Region	Total Population			Population Owning Mobile Phone			Gender Gap
	Total	Male	Female	Total	Male	Female	
Tanzania	54,195,240	26,294,651	27,900,589	53.1	54.8	51.5	3.3
Rural	34,980,065	17,123,389	17,856,676	48.2	51.0	45.6	5.4
Urban	19,215,175	9,171,262	10,043,913	62.1	62.0	62.1	-0.1
Mainland Tanzania	52,523,787	25,488,276	27,035,511	53.0	54.7	51.3	3.4
Dodoma	2,719,645	1,330,103	1,389,542	53.3	56.0	50.7	5.3
Arusha	2,072,590	983,926	1,088,664	58.7	58.0	59.4	-1.4
Kilimanjaro	1,683,481	817,427	866,054	63.3	62.5	64.0	-1.5
Tanga	2,319,362	1,127,431	1,191,931	54.6	55.5	53.8	1.7
Morogoro	2,835,569	1,399,490	1,436,079	55.3	58.0	52.6	5.4
Pwani	1,812,420	892,324	920,096	59.3	59.7	58.9	0.8
Dar es Salaam	4,882,714	2,349,257	2,533,457	70.4	70.3	70.6	-0.3
Lindi	1,074,341	522,848	551,493	56.7	60.0	53.6	6.4
Mtwara	1,476,597	698,330	778,267	55.8	59.9	52.1	7.8
Ruvuma	1,640,028	798,976	841,052	54.1	57.7	50.7	7.0
Iringa	1,067,392	511,830	555,562	57.1	57.9	56.5	1.4
Mbeya	2,068,479	987,639	1,080,840	57.7	58.4	57.1	1.3
Singida	1,740,551	862,197	878,354	48.1	50.8	45.4	5.4
Tabora	2,906,329	1,419,783	1,486,546	44.3	47.8	41.0	6.8
Rukwa	1,319,246	634,664	684,582	42.4	47.4	37.8	9.6
Kigoma	2,117,452	1,010,431	1,107,021	42.6	44.8	40.6	4.2
Shinyanga	1,940,303	952,793	987,510	47.0	50.1	44.0	6.1
Kagera	2,598,342	1,265,138	1,333,204	48.3	51.6	45.2	6.4
Mwanza	3,227,021	1,565,936	1,661,085	50.7	51.5	50.0	1.5
Mara	2,060,759	985,175	1,075,584	46.7	46.7	46.7	0.0
Manyara	1,642,728	829,445	813,283	51.1	52.4	49.7	2.7
Njombe	799,468	376,002	423,466	57.7	58.1	57.4	0.7
Katavi	979,561	483,903	495,658	44.0	48.5	39.6	8.9
Simiyu	1,822,306	875,595	946,711	42.1	43.3	41.0	2.3
Geita	2,548,891	1,251,015	1,297,876	45.4	47.7	43.2	4.5
Songwe	1,168,212	556,618	611,594	51.9	53.9	50.1	3.8
Tanzania Zanzibar	1,671,453	806,375	865,078	58.2	58.4	57.9	0.5
Kaskazini Unguja	227,704	111,750	115,954	55.8	57.7	54.0	3.7
Kusini Unguja	174,664	87,740	86,924	60.1	60.3	59.8	0.5
Mjini Magharibi	794,689	378,417	416,272	63.7	63.6	63.8	-0.2
Kaskazini Pemba	237,574	114,315	123,259	48.9	49.6	48.3	1.3
Kusini Pemba	236,822	114,153	122,669	49.8	49.7	49.8	-0.1

2.2.2 Wealth Quantile

Wealth quantiles are used to classify households into groups based on their relative economic status, both nationally and across regions. In the context of mobile phone ownership, analysing wealth quantiles by region highlights variations in access between poorer and wealthier households within and across regions. This approach provides valuable insights into digital inclusion and helps to identify regional socio-economic disparities in technology adoption.

The 2022 PHC results Table (2.2) show that, notable variations in mobile phone ownership across wealth quantiles, places of residence, and regions in Tanzania. At the national level, mobile phone ownership increases with household wealth. Households in the lowest wealth

quantile account for 17.8% of ownership, compared to 23.8% in the highest quantile, confirming that wealthier households are more likely to own mobile phones.

A strong contrast is observed between rural and urban areas. In rural areas, ownership is concentrated among lower wealth quantiles, with 28.6% of phones owned by the poorest households, compared to only 7.1% among the wealthiest. By contrast, in urban areas, ownership is strongly skewed towards the wealthiest households, who account for 47.5% of mobile phone ownership compared to just 2.6% for the poorest. This reflects a structural digital divide between rural and urban populations.

Regional variations also stand out. Dar es Salaam (66.0%) and Mjini Magharibi (72.9%) record the highest concentration of ownership among the wealthiest households, reflecting greater urbanisation and stronger economic activity. Conversely, regions such as Tabora (39.2%) and Manyara (38.1%) show unexpectedly high ownership among poorer households, suggesting that even low-income families prioritise mobile phones, possibly due to the lack of alternative means of communication and access to services. In regions such as Njombe, Iringa, and Mbeya, ownership is more evenly distributed across the middle and higher quantiles, reflecting a relatively balanced socio-economic spread of mobile access.

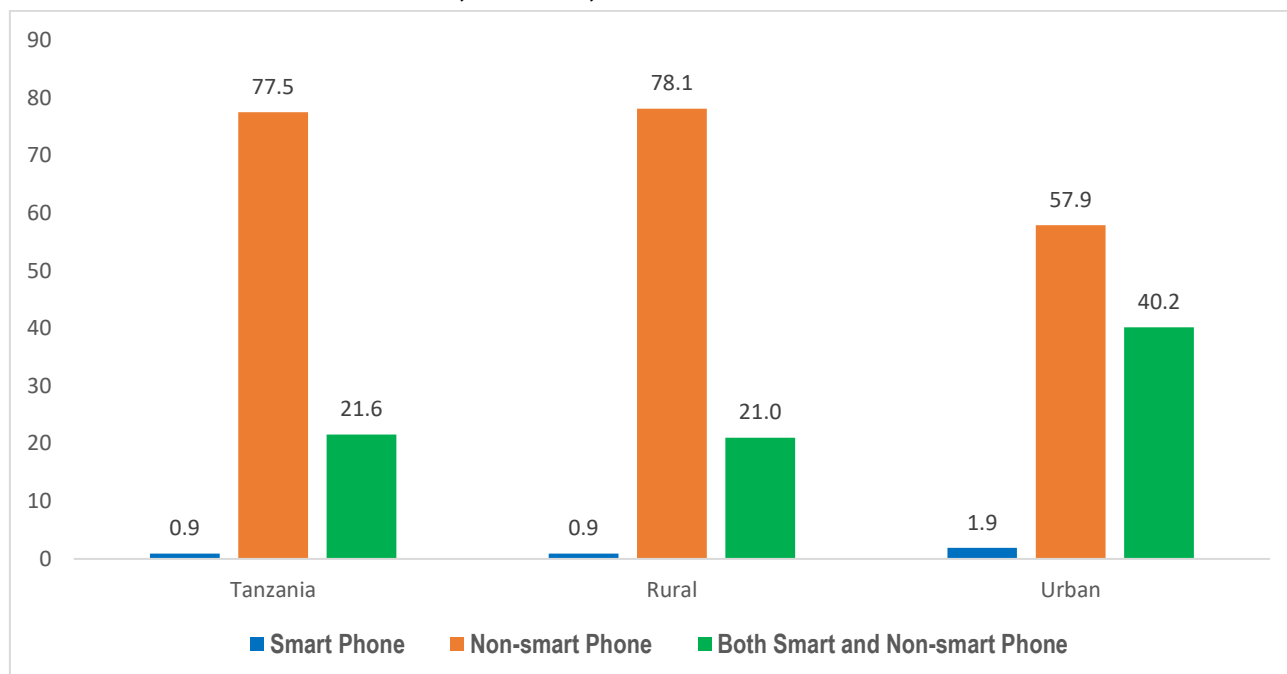
Table 2.2: Percentage of Mobile Phone Ownership with Wealth Quantile, Place of Residence and Region; Tanzania, 2022 PHC

Region	Total	Lowest Total	Second Total	Middle Total	Fourth Total	Highest Total
Total	28,793,346	17.8	18.7	19.9	19.8	23.8
Rural	16,863,041	28.6	27.8	23.5	13.1	7.1
Urban	11,930,305	2.6	5.9	14.9	29.2	47.5
Mainland Tanzania	27,820,986	18.3	19.1	20.0	19.7	22.9
Dodoma	1,450,559	22.3	23.1	19.7	14.9	20.0
Arusha	1,217,095	19.1	11.9	13.1	18.4	37.6
Kilimanjaro	1,065,352	5.5	11.3	22.1	26.8	34.2
Tanga	1,266,612	26.8	19.2	19.0	17.3	17.7
Morogoro	1,567,426	19.3	17.7	22.9	21.9	18.1
Pwani	1,074,915	18.1	14.2	20.1	23.9	23.8
Dar es Salaam	3,438,152	0.3	0.9	7.3	25.4	66.0
Lindi	609,570	31.0	25.6	21.3	13.2	9.0
Mtwara	824,122	19.6	26.8	26.9	15.8	10.9
Ruvuma	887,422	13.1	22.7	29.3	23.3	11.5
Iringa	609,820	10.4	16.0	25.2	25.0	23.4
Mbeya	1,193,780	10.2	15.2	23.3	27.3	24.0
Singida	837,234	32.7	26.6	18.0	12.0	10.6
Tabora	1,288,206	39.2	22.5	16.9	12.4	9.1
Rukwa	559,597	27.3	27.4	22.5	14.3	8.5
Kigoma	902,138	18.1	34.7	25.9	13.2	8.0
Shinyanga	911,966	24.4	22.7	19.0	18.6	15.3
Kagera	1,255,368	25.0	29.9	21.3	13.8	10.0
Mwanza	1,637,150	10.4	18.9	22.8	24.4	23.5
Mara	962,264	22.9	24.2	22.8	16.7	13.4
Manyara	838,838	38.1	21.9	17.0	12.5	10.5
Njombe	461,530	4.8	17.2	31.8	29.8	16.5
Katavi	431,254	26.1	23.6	22.5	19.0	8.8
Simiyu	766,825	30.4	34.5	17.7	10.0	7.4
Geita	1,157,524	13.9	24.7	28.0	23.8	9.6
Songwe	606,267	17.7	23.8	26.7	20.0	11.8
Tanzania Zanzibar	972,360	4.1	6.4	17.2	22.2	50.1
Kaskazini Unguja	127,121	3.2	8.4	35.4	31.1	21.9
Kusini Unguja	104,889	4.3	7.1	26.1	27.4	35.1
Mjini Magharibi	506,269	0.3	0.6	6.3	19.9	72.9
Kaskazini Pemba	116,223	16.4	17.8	26.6	19.2	20.1
Kusini Pemba	117,858	9.0	17.1	27.1	21.1	25.7

2.2.3 Individual Ownership of Mobile Phone by Type of Mobile Phone

The analysis of mobile phone ownership by type presented in Figure 2.3 indicates that 77.5 percent of individuals aged four years and above own non-smartphones, 21.6 percent own both smart and non-smartphones and 0.9 percent own only smartphones. The percentage of individuals owning non-smart phones is higher (78.1%) in Mainland Tanzania than in Tanzania Zanzibar (57.9%) whereas individuals owning smartphones is higher in Tanzania Zanzibar (1.9%) than in Mainland Tanzania (0.9%). Also, the results indicate that the percentage of individuals owning non-smartphones is higher in rural areas (78.1%) than in urban areas (57.9). The percentage of individuals owning both smart and non-smartphones in urban areas is almost two times higher (40.2%) than that of rural areas.

Figure 2.3: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type and Place of Residence; Tanzania, 2022 PHC

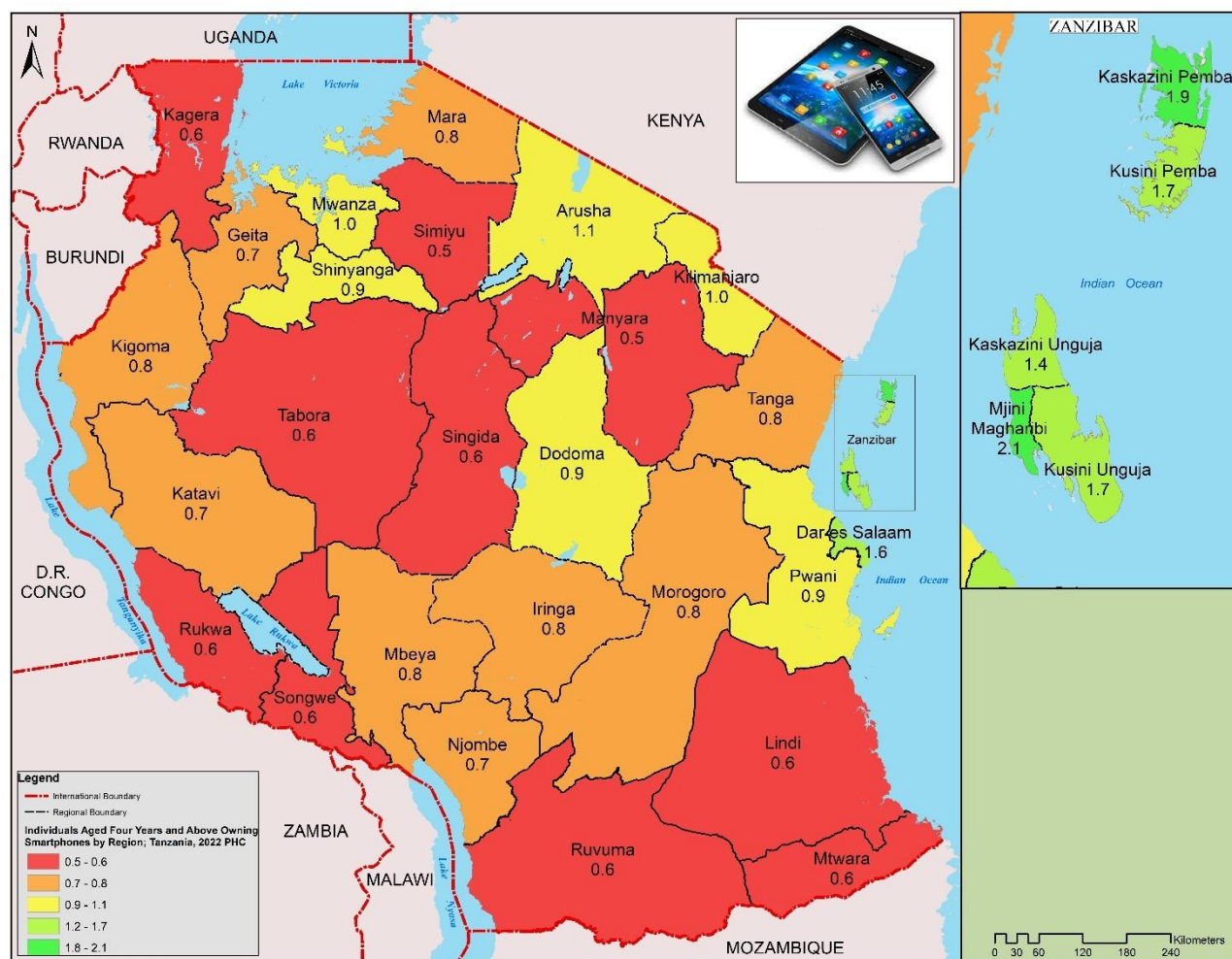


Across regions, the percentage of individuals owning non-smartphones is higher than 70.0 percent for all regions except for Dar es Salaam (50.6%), Kusini Unguja (61.6%) and Arusha (68.6%) regions. The results further show that ownership of both smart and non-smartphones is lower than 50 percent in all regions except for Mjini Magharibi Region (52.1%), while Simiyu region records the lowest percentage (8.6%). Ownership of smartphones in Tanzania is very low across all regions, ranging from 0.5 percent in Manyara and Simiyu regions to 1.6 percent in Dar es Salaam region in Mainland Tanzania and from 1.4 percent in Kaskazini Unguja region to 2.1 percent in Mjini Magharibi region Tanzania Zanzibar (Table 2.3). Additionally, Maps 2.2, 2.3 and 2.4 show the percentage of individuals aged four years and above owning smartphones, non-smartphones and both non-smartphones and smartphones by region, respectively.

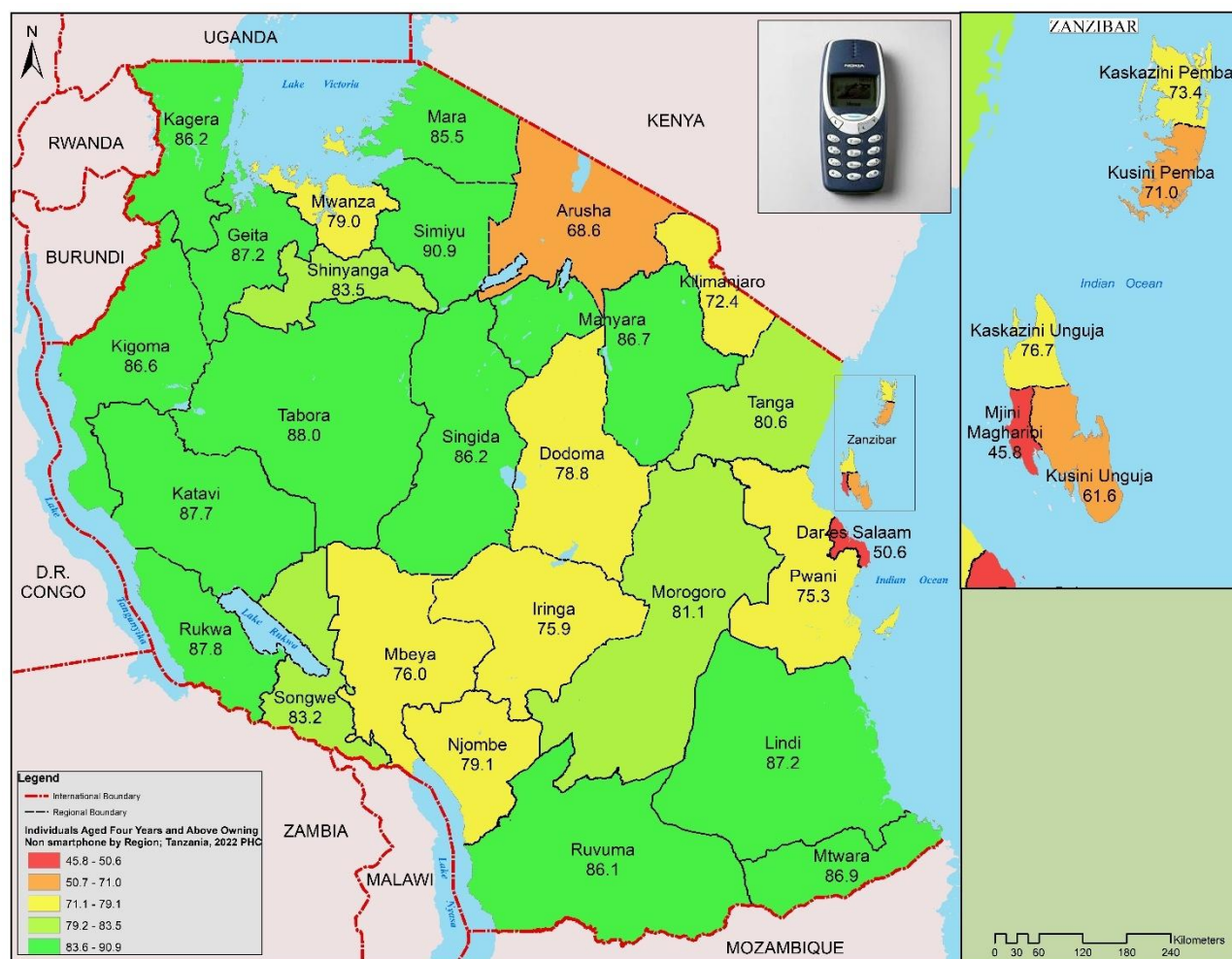
Table 2.3: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type and Region; Tanzania, 2022 PHC

Region	Total	Smart Phone	Non-smart Phone	Smart and Non-smartPhones
Tanzania	28,793,346	0.9	77.5	21.6
Rural	27,820,986	0.9	78.1	21.0
Urban	972,360	1.9	57.9	40.2
Mainland Tanzania	27,820,986	0.9	78.1	21.0
Dodoma	1,450,559	0.9	78.8	20.3
Arusha	1,217,095	1.1	68.6	30.3
Kilimanjaro	1,065,352	1.0	72.4	26.6
Tanga	1,266,612	0.8	80.6	18.6
Morogoro	1,567,426	0.8	81.1	18.1
Pwani	1,074,915	0.9	75.3	23.8
Dar es Salaam	3,438,152	1.6	50.6	47.8
Lindi	609,570	0.6	87.2	12.2
Mtwara	824,122	0.6	86.9	12.6
Ruvuma	887,422	0.6	86.1	13.4
Iringa	609,820	0.8	75.9	23.3
Mbeya	1,193,780	0.8	76.0	23.2
Singida	837,234	0.6	86.2	13.2
Tabora	1,288,206	0.6	88.0	11.4
Rukwa	559,597	0.6	87.8	11.6
Kigoma	902,138	0.8	86.6	12.6
Shinyanga	911,966	0.9	83.5	15.6
Kagera	1,255,368	0.6	86.2	13.1
Mwanza	1,637,150	1.0	79.0	20.0
Mara	962,264	0.8	85.5	13.7
Manyara	838,838	0.5	86.7	12.8
Njombe	461,530	0.7	79.1	20.1
Katavi	431,254	0.7	87.7	11.6
Simiyu	766,825	0.5	90.9	8.6
Geita	1,157,524	0.7	87.2	12.1
Songwe	606,267	0.6	83.2	16.2
Tanzania Zanzibar	972,360	1.9	57.9	40.2
Kaskazini Unguja	127,121	1.4	76.7	21.9
Kusini Unguja	104,889	1.7	61.6	36.7
Mjini Magharibi	506,269	2.1	45.8	52.1
Kaskazini Pemba	116,223	1.9	73.4	24.7
Kusini Pemba	117,858	1.7	71.0	27.3

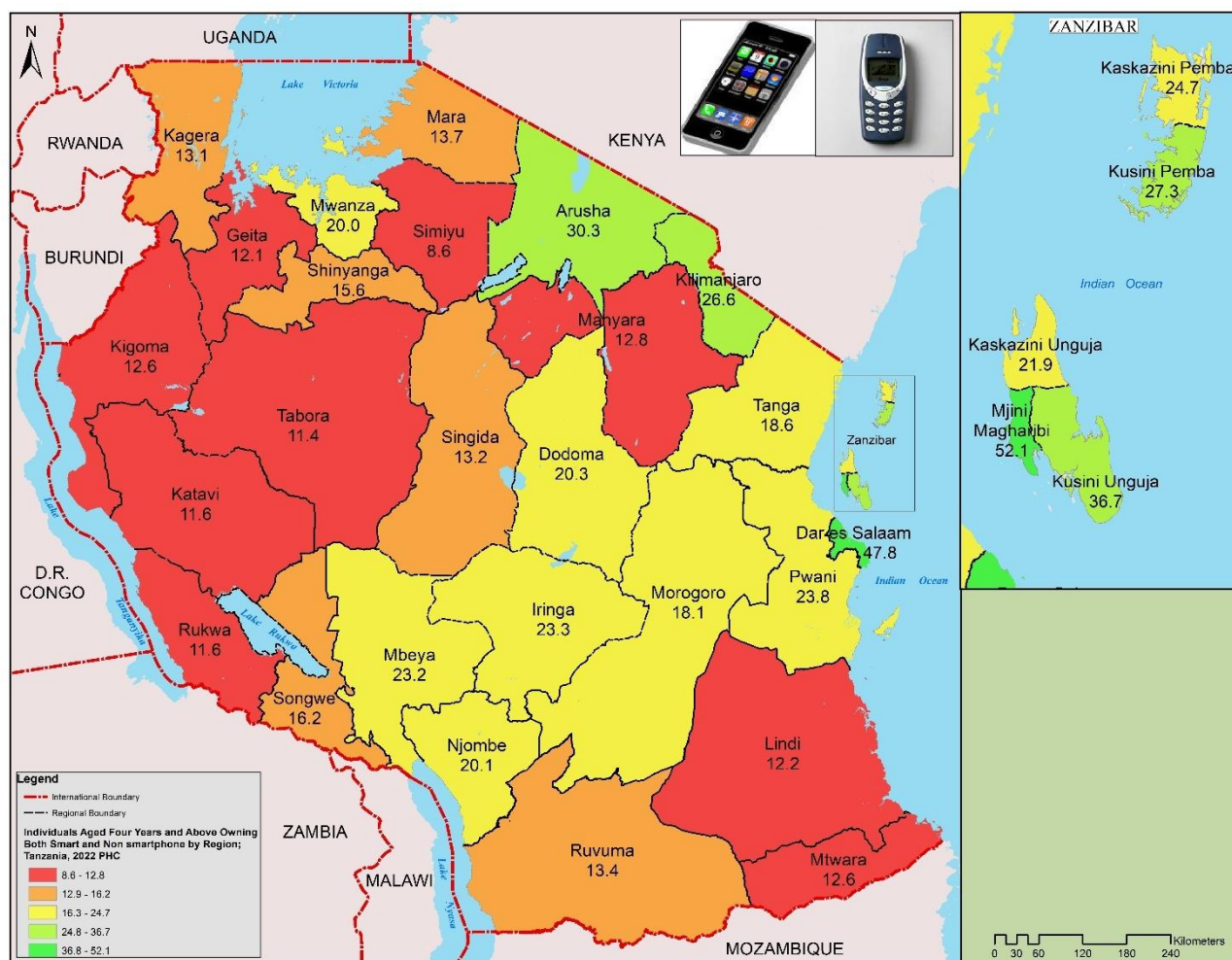
Map 2.2: Percentage of Individuals Aged Four Years and Above Owning Smartphones by Region; Tanzania, 2022 PHC



Map 2.3: Percentage of Individuals Aged Four Years and Above Owning Non-smartphones by Region; Tanzania, 2022 PHC



Map 2.4: Percentage of Individuals Aged Four Years and Above Owning Non-smartphones and Smartphones by Region; Tanzania, 2022 PHC



2.2.4 Individual Ownership of Mobile Phone by Age Group and Sex

The 2022 PHC provides detailed insights into mobile phone ownership among individuals aged four years and above in Tanzania, disaggregated by type of phone, age group, and sex. The findings indicate that non-smartphones are the most owned type of mobile phone across most age groups. Ownership of non-smartphones is particularly high among youth aged 15–19 years (88.2% total; 87.3% males; 89.1% females). Similar patterns are observed for the 20–24 years group (68.9%) and the 25–29 years group (67.3%), verifying that non-smartphones remain the most accessible and widely used devices.

In contrast, smartphone ownership is relatively low across all groups, although there is an indication of an increase with age. For instance, only 1.3 percent of those aged 15–19 reported owning smartphones, while the proportion rises slightly to 1.7 percent for those aged 20–24. Although these percentages remain small, the upward trend reflects the early stages of digital adoption among younger persons.

An interesting trend is observed among those owning both smartphones and non-smartphones whereby ownership is 10.5 percent in the age group 15–19, increasing to 29.4

percent in the age group 20–24, and to 31.7 percent for those aged 25–29. This suggests that although many young persons continue to use non-smartphones for essential communication (calls and SMS), they are simultaneously adopting smartphones, probably for internet access, social networking, and digital applications.

Gender differences exist, with young male adults (age 20–34) being more likely to own both smart and non-smartphones than young female adults, whereas females in the same age category are more likely to own non-smartphones.

The results in Table 2.4 reveal that non-smartphones remain the dominant devices in Tanzania, especially among younger age groups, while smartphones are gradually penetrating the market. The relatively high percentage of ownership of both smart and non-smartphones among young adults (20–29 years) highlights a transitional stage in mobile technology adoption. These patterns underscore the importance of affordability, accessibility, and digital literacy in shaping Tanzania’s mobile phone landscape.

Table 2.4: Percentage of Individuals Aged Four Years and Above Owning Mobile Phones by Type, Sex and Age Group; Tanzania, 2022 PHC

Age Group	Total			Smart Phones			Non-smart Phones			Both Smart and Non-smart Phones		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Male	Female
Total	28,793,346	14,416,206	14,377,140	0.9	0.8	1.0	77.5	76.1	78.8	21.6	23.1	20.1
4	18,370	9,198	9,172	14.5	14.3	14.8	80.5	80.8	80.2	5.0	4.9	5.1
5-9	115,539	57,899	57,640	12.0	11.9	12.1	83.0	83.1	82.9	5.0	5.0	5.0
10-14	200,684	111,204	89,480	10.1	9.9	10.3	85.7	86.2	85.1	4.2	3.9	4.6
15 - 19	3,452,393	1,745,875	1,706,518	1.3	1.5	1.2	88.2	87.3	89.1	10.5	11.2	9.7
20 - 24	4,473,254	2,166,848	2,306,406	1.7	1.5	1.8	68.9	68.1	69.7	29.4	30.3	28.5
25 - 29	4,062,569	2,010,353	2,052,216	1.0	0.7	1.2	67.3	66.1	68.5	31.7	33.2	30.3
30 - 34	3,455,663	1,740,798	1,714,865	0.7	0.4	0.9	69.7	67.8	71.7	29.6	31.7	27.5
35 - 39	2,814,826	1,409,780	1,405,046	0.5	0.3	0.7	74.6	72.4	76.7	24.9	27.3	22.6
40 - 44	2,403,577	1,216,040	1,187,537	0.4	0.2	0.5	78.5	76.6	80.4	21.1	23.2	19.0
45 - 49	2,042,676	1,044,945	997,731	0.3	0.2	0.4	81.6	80.0	83.3	18.1	19.8	16.3
50 - 54	1,654,259	847,091	807,168	0.2	0.1	0.4	84.5	82.8	86.3	15.3	17.1	13.4
55 - 59	1,124,781	582,040	542,741	0.2	0.1	0.3	85.9	84.0	87.8	13.9	15.8	11.9
60 - 64	1,023,091	524,354	498,737	0.2	0.1	0.3	88.5	86.9	90.3	11.3	13.0	9.4
65 - 69	618,789	311,367	307,422	0.2	0.1	0.3	90.0	87.9	92.0	9.8	12.0	7.7
70 - 74	539,524	269,772	269,752	0.2	0.1	0.3	93.4	91.8	94.9	6.4	8.1	4.8
75 - 79	312,476	153,620	158,856	0.2	0.1	0.4	95.1	94.0	96.2	4.6	5.9	3.5
80+	480,875	215,022	265,853	0.3	0.1	0.4	97.3	96.9	97.6	2.4	3.0	1.9

2.2.5 Ownership of Mobile Phone by Type of Disability

Mobile phone ownership among persons with disabilities varies considerably depending on the type of disability. Table 2.5 shows that the percentage of individuals with disabilities aged 4 years and above owning mobile phones varies significantly by type of disability and sex, highlighting potential gender disparities in mobile phone ownership. The 2022 PHC shows that the highest ownership levels are recorded among persons with albinism disabilities (80.9%), followed by visual disabilities (65.9%) and walking disabilities (65.2%), while the lowest are observed among those with communication disabilities (45.3%). This suggests that certain disabilities present more significant barriers to mobile phone adoption, particularly when linked to challenges in interaction and communication.

The results further show that gender disparities are evident across almost all types of disability. Males with disabilities are more likely to own mobile phones than females with comparable condition. For instance, 84.5 percent of males with albinism disabilities own mobile phones compared with 76.0 percent of females with the same type of disability. Similarly, 67.2 percent of males with visual disabilities own mobile phones compared to 64.9 percent of females. The gender gap is smallest among persons with communication disabilities, where ownership rates are 46.1% for males and 44.5% for females.

Table 2.5: Percentage of Persons Aged Four Years and Above with Disability Owning Mobile Phones by Sex and Type of Disability; Tanzania, 2022 PHC

Type of Disability	Number of Persons with Disability			Percent		
	Total	Males	Females	Total	Males	Females
Seeing	2,276,843	1,005,270	1,271,573	65.9	67.2	64.9
Hearing	1,084,607	484,148	600,459	59.9	62.5	57.8
Walking	1,719,610	738,246	981,364	65.2	66.9	63.9
Remembering	859,881	378,595	481,286	58.6	59.0	58.4
Selfcare	479,341	221,815	257,526	51.2	52.5	50.0
Communication	613,177	297,768	315,409	45.3	46.1	44.5
Albinism	69,956	40,511	29,445	80.9	84.5	76.0

2.3 Use of Mobile Phone at the Individual Level

Mobile phone usage has become an essential part of daily life for individuals across the world. It enables communication, access to information, financial services, education, and social interaction. Individuals use mobile phones for various purposes such as making calls, sending messages, browsing the internet, using social media, conducting mobile banking, and accessing government or health services. The type of phone owned, whether a smartphone or a non-smartphone, often influences the range of activities an individual can

perform. Understanding mobile phone usage helps to assess digital inclusion, technological advancement, and socio-economic development at both individual and national levels.

2.3.1 Use of Mobile Phone by Age and Sex

The findings in Table 2.6 show that a total of 31.7 million persons aged four years and above reported using mobile phones, with males accounting for 15.5 million and females 16.2 million. The majority of mobile phone users (77.9%) reported exclusively using non-smartphones, 20.9 percent reported using both smartphones and non-smartphones, and only 1.2 percent reported using only smartphones. A gender variation is observed, whereby a higher percentage of females (79.5%) reported using only non-smart phones compared with that of males (76.2%). On the other hand, males are more likely (22.7%) to use both non-smart and smartphones than females (19.2%).

Age-specific patterns of mobile phone use revealed notable differences in usage across the life cycle. Among children aged 4–14 years, mobile phone ownership and use remain relatively low, with non-smartphones being the predominant type. Interestingly, children aged four years recorded the highest exclusive use of smartphones (16.8%), though this is likely influenced by parental or guardian ownership and use rather than independent use. Among youth and young adults (15–34 years), there is a clear shift in the use of both smart and non-smartphones, peaking at 30.8 percent in the 25–29 age group. Exclusive smartphone use among this age range remains minimal, ranging from 0.5 percent to 1.5 percent.

In the middle-aged population (35–54 years), the use of non-smartphones continues to dominate, ranging from 75.4 to 84.9 percent. However, the use of both smart and non-smartphones for this age group gradually declines with age. The use of non-smartphones among older adults (aged 55 years and above) is very high, increasing from 86.2 percent in the age group 55-59 to 97.4 percent among persons aged 80 years and above. Use of both smart and non-smartphones for this group of persons indicates a sharply decline with age, declining from 13.6 percent among those aged 55-59 years to only 2.4 percent among those aged 80 years and above, whereas use of smartphones only for this group remains negligible, ranging from 0.1 to 0.2 percent.

These results suggest that non-smartphones remain the backbone of mobile communication in Tanzania, particularly among older adults, while younger adults, especially those aged 20–34 years, are leading the gradual transition toward smartphones. Gender differences are minimal but indicate that men are slightly more likely to adapt to the use of both smart and non-smartphones, whereas women rely more heavily on non-

smartphones. Exclusive smartphone use remains very limited across all age groups (Table 2.6).

Table 2.6: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex and Age Group; Tanzania, 2022 PHC

Age Group	Using Mobile Phone			Only Smart Phones			Only Non-smart Phones			Both Smart and Non-smart Phones		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
Total	31,665,367	15,510,044	16,155,323	1.2	1.1	1.2	77.9	76.2	79.5	20.9	22.7	19.2
4	93,628	46,417	47,211	16.8	17.1	16.6	72.6	72.0	73.1	10.6	10.9	10.3
5-9	627,853	308,869	318,984	12.9	13.0	12.7	76.4	76.2	76.6	10.7	10.8	10.7
10-14	992,503	497,186	495,317	8.3	8.1	8.5	81.6	82.0	81.2	10.2	9.9	10.4
15 - 19	4,037,731	2,006,807	2,030,924	1.5	1.5	1.5	85.0	84.5	85.6	13.5	14.0	12.9
20 - 24	4,717,050	2,224,555	2,492,495	1.1	1.1	1.1	70.5	69.0	72.0	28.3	29.9	26.9
25 - 29	4,215,386	2,034,787	2,180,599	0.7	0.6	0.8	68.5	66.5	70.3	30.8	33.0	28.8
30 - 34	3,567,637	1,757,214	1,810,423	0.5	0.3	0.6	70.7	68.1	73.2	28.8	31.5	26.2
35 - 39	2,904,948	1,421,994	1,482,954	0.4	0.2	0.5	75.4	72.7	77.9	24.3	27.1	21.6
40 - 44	2,474,520	1,226,172	1,248,348	0.3	0.2	0.4	79.1	76.8	81.4	20.6	23.0	18.2
45 - 49	2,101,218	1,053,607	1,047,611	0.2	0.1	0.3	82.1	80.2	84.1	17.7	19.7	15.6
50 - 54	1,702,021	854,295	847,726	0.2	0.1	0.2	84.9	82.9	86.9	14.9	17.0	12.8
55 - 59	1,155,919	586,784	569,135	0.2	0.1	0.2	86.2	84.2	88.4	13.6	15.8	11.4
60 - 64	1,052,705	529,014	523,691	0.1	0.1	0.2	88.9	87.0	90.7	11.0	12.9	9.0
65 - 69	637,837	314,202	323,635	0.1	0.1	0.2	90.3	88.0	92.4	9.6	11.9	7.4
70 - 74	557,104	272,892	284,212	0.1	0.1	0.2	93.6	91.9	95.2	6.3	8.0	4.6
75 - 79	323,823	155,664	168,159	0.2	0.1	0.2	95.3	94.1	96.4	4.6	5.8	3.4
80+	503,484	219,585	283,899	0.2	0.1	0.2	97.4	96.9	97.8	2.4	3.0	2.0

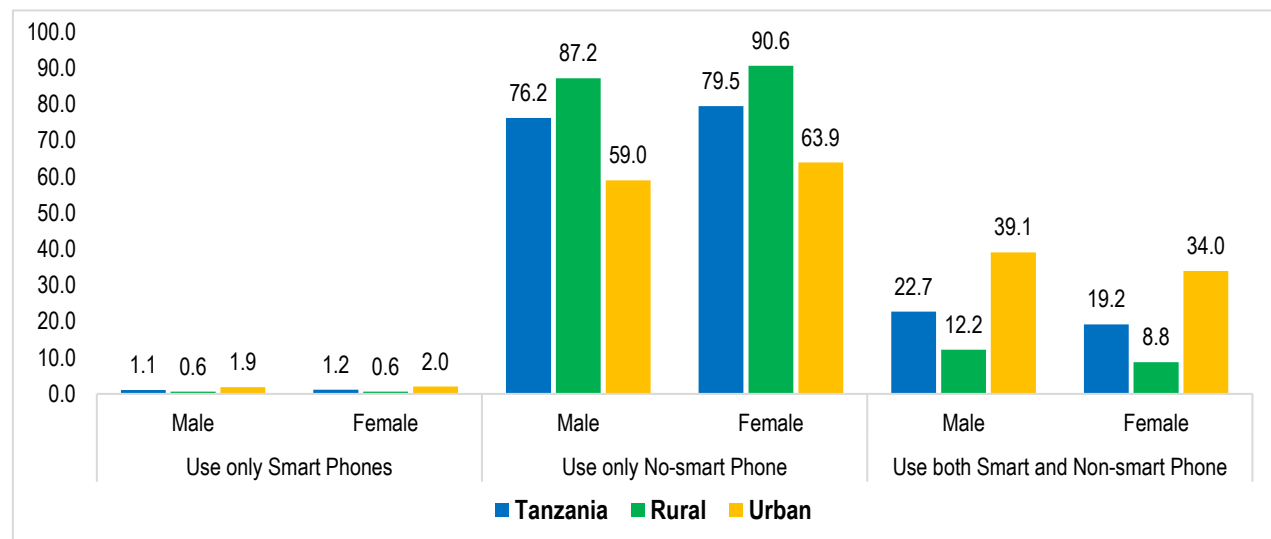
2.3.2 Use of Mobile Phone by Place of Residence

Mobile phone use differs by phone type, sex, and place of residence. The use of smartphones is generally higher in urban areas than in rural areas and among males than among females, whereas non-smartphones are more common in rural areas and among males. These differences reflect variations in income, education, and access to technology (Pew Research Centre, 2023).

The results presented in Figure 2.4 exhibit clear disparities in mobile phone use across different population groups. Non-smartphone usage is higher among females in both rural and urban areas (90.6% and 63.9% respectively) than among males (87.2% and 59.0% respectively). Conversely, in urban areas, females are more likely to use smartphones (2.0%) compared with males (1.9%).

These differences highlight significant gaps in digital access, emphasizing the need for targeted policies to promote mobile technology use among rural populations and females, thereby advancing digital inclusion nationwide.

Figure 2.4: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex and Place of Residence; Tanzania, 2022 PHC



The results in Table 2.7 show that, 77.9 percent of mobile phone users in Tanzania use non-smartphones, 20.9 percent use both smartphones and non-smartphones, and only 1.2 percent exclusively use smartphones. However, Tanzania Zanzibar portray a different usage pattern, with a relatively higher percentage of exclusively smartphone use (3.1%) and use of both smart and non-smartphones (39.8%), while the use of non-smartphones stands at 57.2 percent.

Across Mainland regions, variations in mobile phone usage patterns are evident. Dar es Salaam recorded the most distinct profile, with nearly half of users (47.8%) using both smart and non-smartphones and 2.5 percent using only smartphones. This indicates a strong shift toward smartphone penetration in the Region compared to the national average. Similarly, Arusha and Kilimanjaro regions registered relatively high levels of use of both smart and non-smartphones (30.1% and 26.4% respectively), indicating greater integration of smartphones alongside non-smartphones. In contrast, regions like Simiyu (91.6%), Tabora (88.6%), and Rukwa (88.3%) show relatively higher percentages of non-smartphone use, with very limited smartphone use.

Gender gaps exist across all regions of Mainland Tanzania, with females more likely to use non-smartphones than males in all regions. They are also more likely to use smartphones than males in all regions except the Simiyu Region, whereas males are more likely to use both smart and non-smartphones across all Mainland Tanzania regions. The largest gender gap in the use of smartphones is found in the Dar es Salaam Region (0.3 percentage points), whereas for the use of non-smartphones as well as the use of both smart and non-smartphones it is found in the Kigoma Region (5.7 percentage points each). Tanzania Zanzibar exhibit a unique pattern of mobile phone use with Mjini Magharibi Region having the highest percentage of individuals aged four years and above using only smartphones (4.0%) and both smart and non-smartphones (51.7%). Other regions with relatively higher percentage use of smartphones are Kusini Unguja (2.5%) and Kaskazini Pemba (2.3%). In contrast, for those using both smart and non-smartphones, it is Kusini Unguja (36.8%) and Kusini Pemba (26.8%).

On the other hand, Kaskazini Unguja has the highest percentage of individuals using only non-smartphones (76.8%). Other regions in Zanzibar, with relatively high percentages of non-smartphones use are Kaskazini Pemba (73.4%) and Kusini Pemba (71.0%). Non-smartphones continue to dominate mobile phone use in Tanzania, particularly in rural regions and in the Mainland Tanzania. However, urban areas such as Dar es Salaam and Mjini Magharibi are driving the transition toward smartphones use, reflected in the relative high rates of use for smartphones and of both smartphones and non-smartphones. Tanzania Zanzibar exhibits faster adoption of smartphones compared to the Mainland Tanzania, underscoring emerging regional disparities in mobile phone technology uptake (Table 2.7)

Table 2.7: Percentage of Individuals Aged Four Years and Above Using Mobile Phones by Type, Sex, Gender Gap, Place of Residence and Region; Tanzania, 2022 PHC

Region	Population of Using Mobile Phone Age 4+			Use only Smartphone			Use only non-Smartphone			Use Both Smart and Non-smartphone			Gender Gap		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Only Smartphone	Only Non-Smartphone	Smartphone and Non-smartphone
Total	31,665,367	15,510,044	16,155,323	1.2	1.1	1.2	77.9	76.2	79.5	20.9	22.7	19.2	0.1	3.3	-3.5
Rural	18,968,482	9,497,582	9,470,900	0.6	0.6	0.6	88.9	87.2	90.6	10.5	12.2	8.8	0.0	3.4	-3.4
Urban	12,696,885	6,012,462	6,684,423	2.0	1.9	2.1	61.6	59.0	63.9	36.4	39.1	34.0	0.2	4.9	-5.1
Mainland Tanzania	30,627,330	15,012,276	15,615,054	1.1	1.0	1.2	78.6	76.9	80.2	20.3	22.0	18.6	0.2	3.3	-3.4
Dodoma	1,632,484	813,498	818,986	1.2	1.1	1.3	79.2	77.8	80.5	19.6	21.1	18.2	0.2	2.7	-2.9
Arusha	1,294,570	603,375	691,195	1.7	1.6	1.7	68.2	65.6	70.5	30.1	32.7	27.8	0.1	4.9	-4.9
Kilimanjaro	1,135,692	542,550	593,142	1.4	1.3	1.5	72.2	71.1	73.3	26.4	27.6	25.3	0.2	2.2	-2.3
Tanga	1,451,372	700,209	751,163	1.1	1.0	1.2	81.2	79.4	82.8	17.7	19.5	16.0	0.2	3.4	-3.5
Morogoro	1,728,914	872,277	856,637	0.9	0.8	1.0	81.5	80.5	82.5	17.6	18.7	16.5	0.2	2.0	-2.2
Pwani	1,163,383	569,419	593,964	1.3	1.2	1.4	75.3	73.9	76.6	23.4	25.0	22.0	0.2	2.7	-3.0
Dar es Salaam	3,581,759	1,715,581	1,866,178	2.5	2.3	2.6	49.7	47.6	51.6	47.8	50.1	45.8	0.3	4.0	-4.3
Lindi	682,705	339,593	343,112	0.6	0.5	0.6	87.7	85.6	89.8	11.7	13.9	9.6	0.1	4.2	-4.3
Mtwara	907,020	444,658	462,362	0.6	0.5	0.6	87.3	84.8	89.7	12.1	14.6	9.7	0.1	4.9	-4.9
Ruvuma	970,413	487,888	482,525	0.6	0.5	0.7	86.4	85.0	87.9	13.0	14.5	11.5	0.2	2.9	-3.0
Iringa	664,541	317,995	346,546	1.2	1.1	1.2	76.0	73.7	78.2	22.8	25.2	20.6	0.1	4.5	-4.6
Mbeya	1,275,935	608,209	667,726	1.1	1.0	1.1	75.9	73.5	78.2	23.0	25.5	20.7	0.1	4.7	-4.8
Singida	927,997	472,974	455,023	0.7	0.6	0.7	86.6	85.1	88.2	12.8	14.3	11.2	0.1	3.1	-3.1
Tabora	1,482,326	749,235	733,091	0.7	0.6	0.7	88.6	87.4	89.9	10.7	12.0	9.4	0.1	2.5	-2.6
Rukwa	630,620	322,651	307,969	0.6	0.6	0.7	88.3	86.2	90.5	11.0	13.2	8.8	0.1	4.3	-4.4
Kigoma	1,003,459	488,075	515,384	0.8	0.8	0.8	87.0	84.1	89.8	12.2	15.1	9.4	0.0	5.7	-5.7
Shinyanga	1,050,037	529,131	520,906	1.0	0.9	1.0	84.1	82.8	85.4	14.9	16.3	13.6	0.1	2.6	-2.7
Kagera	1,374,727	694,018	680,709	0.7	0.6	0.8	86.4	85.1	87.9	12.9	14.3	11.4	0.2	2.8	-2.9
Mwanza	1,819,037	879,685	939,352	1.1	1.1	1.2	79.7	77.5	81.7	19.2	21.4	17.2	0.1	4.2	-4.2
Mara	1,084,911	508,979	575,932	0.9	0.9	0.9	85.8	83.0	88.2	13.3	16.1	10.9	0.0	5.2	-5.2
Manyara	907,655	463,413	444,242	0.6	0.6	0.6	86.8	85.7	87.8	12.6	13.7	11.5	0.0	2.1	-2.2
Njombe	494,320	231,041	263,279	0.8	0.8	0.8	79.3	76.7	81.6	19.9	22.5	17.6	0.0	4.9	-4.9
Katavi	490,809	255,720	235,089	0.7	0.6	0.8	88.2	86.2	90.3	11.1	13.1	8.9	0.2	4.1	-4.2
Simiyu	913,225	434,537	478,688	0.5	0.5	0.4	91.6	89.6	93.3	8.0	9.9	6.2	-0.1	3.7	-3.7
Geita	1,295,933	648,176	647,757	0.7	0.7	0.7	87.8	85.8	89.8	11.6	13.6	9.5	0.0	4.0	-4.1
Songwe	663,486	319,389	344,097	0.7	0.7	0.8	83.4	80.8	85.8	15.8	18.5	13.4	0.1	5.0	-5.1
Tanzania Zanzibar	1,038,037	497,768	540,269	3.1	3.0	3.1	57.2	55.0	59.2	39.8	42.0	37.7	0.1	4.2	-4.3
Kaskazini Unguja	132,692	66,371	66,321	1.5	1.4	1.6	76.8	73.9	79.6	21.8	24.7	18.8	0.2	5.7	-5.9
Kusini Unguja	110,145	55,000	55,145	2.5	2.3	2.6	60.7	59.0	62.4	36.8	38.6	35.0	0.3	3.4	-3.6
Mjini Magharibi	535,861	253,520	282,341	4.0	3.8	4.1	44.3	42.8	45.7	51.7	53.4	50.1	0.3	2.9	-3.3
Kaskazini Pemba	129,443	61,625	67,818	2.3	2.6	2.0	73.4	68.6	77.7	24.4	28.8	20.3	-0.6	9.1	-8.5
Kusini Pemba	129,896	61,252	68,644	2.2	2.4	2.1	71.0	67.6	74.0	26.8	30.0	23.9	-0.3	6.4	-6.1

2.3.3 Use of Mobile Phone by Type of Occupation

Occupation influences both the need and ability to use mobile phones; person in formal and unskilled jobs tend to use mobile phones more frequently. Mobile phone use across most occupations increases with urban residence and younger age. In rural areas and among older individuals, the use is more basic and less frequent (ITU, 2020).

Table 2.8 shows that in Tanzania, a relatively higher percentage (4.3%) of individuals aged five years and above who use mobile phones are engaged in agricultural and fishery occupations, followed by those engaged in elementary occupations (4.2%). A similar pattern is observed in Mainland Tanzania, except for a slightly change for those involved in elementary occupations (4.0%).

Across regions in Tanzania Mainland, Kilimanjaro Region has a relatively higher percentage (6.8%) of individuals aged five years and above using mobile phones who are engaged in agricultural and fishery workers, followed by Arusha (5.8%) and Mbeya (5.7%) regions. Dar es Salaam has a relatively higher percentage of individuals using mobile phones with many engaged in non-agricultural occupations. These include elementary occupations (10.8%); skilled professions such as legislators (0.8%), professionals (2.8%) and technicians and associate professionals (3.6%). Additionally, there are significant numbers in crafts and related occupations (5.0%); service workers and shop sales workers (2.6%); and clerks (0.6%), reflecting their urbanised and diversified economy.

In Tanzania Zanzibar, mobile phone users aged five years and above are more likely to be engaged in elementary occupations (9.0%) and crafts and related occupations (5.0%). Mobile phone use in Tanzania Zanzibar varies across regions with Mjini Magharibi Region having relatively higher percentages of individuals engaged in non-agricultural occupations. These include elementary occupations (11.8%), crafts and related occupations as well as in service workers and shop sales workers (6.2%), technical and associate professional occupations (3.8%); professional occupations (3.3%) and legislator, administrators and managers occupation (1.6%). Kusini Unguja Region has a relatively higher percentage of individuals aged five years and above who use mobile phones and are engaged in agricultural and fishery occupation (6.0%) followed by Kaskazini Pemba Region (5.6%).

Table 2.8: Percentage of Individuals Aged Five Years and Above Using Mobile Phones by Type of Occupation and Region; Tanzania, 2022 PHC

Region	Population Using Mobile Phone	Legislators Administrators and Managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop Sales Workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and Assemblers	Elementary Occupations
Total	31,571,739	0.3	1.2	1.5	0.2	1.8	4.3	2.6	0.3	4.2
Mainland Tanzania	30,536,771	0.3	1.1	1.5	0.2	1.7	4.3	2.5	0.3	4.0
Dodoma	1,626,839	0.4	1.3	1.5	0.3	1.6	4.3	2.6	0.3	4.1
Arusha	1,290,858	0.4	1.9	2.2	0.3	2.6	5.8	4.6	0.4	6.5
Kilimanjaro	1,133,327	0.3	1.7	1.8	0.3	2.0	6.8	3.7	0.3	4.9
Tanga	1,445,418	0.2	0.8	1.4	0.3	1.6	4.1	2.4	0.5	3.5
Morogoro	1,723,590	0.2	0.9	1.3	0.2	1.5	4.9	2.1	0.4	2.8
Pwani	1,159,937	0.3	1.1	1.7	0.2	2.0	5.4	3.1	0.5	4.1
Dar es Salaam	3,573,487	0.8	2.8	3.6	0.6	4.6	3.9	5.0	0.9	10.9
Lindi	680,800	0.2	0.5	0.8	0.1	0.8	4.1	1.4	0.1	2.0
Mtwara	905,146	0.2	0.5	1.0	0.2	1.0	4.0	1.4	0.2	1.8
Ruvuma	968,481	0.2	0.7	0.9	0.1	0.9	4.5	1.7	0.2	1.6
Iringa	662,771	0.2	1.4	1.6	0.2	1.9	5.1	3.4	0.4	3.8
Mbeya	1,272,959	0.3	1.2	1.4	0.2	1.8	5.7	3.0	0.3	5.5
Singida	925,371	0.2	0.7	0.8	0.1	0.9	4.3	1.7	0.2	2.0
Tabora	1,476,522	0.1	0.5	0.7	0.1	0.9	3.4	1.3	0.1	1.6
Rukwa	629,019	0.1	0.6	0.9	0.1	1.0	3.4	1.6	0.2	1.5
Kigoma	1,000,764	0.2	0.7	0.9	0.1	0.8	3.6	1.8	0.2	1.6
Shinyanga	1,045,714	0.1	0.8	1.0	0.1	1.1	3.7	1.9	0.2	3.5
Kagera	1,371,830	0.2	0.7	0.9	0.1	0.9	3.4	1.4	0.2	2.5
Mwanza	1,813,085	0.3	1.1	1.4	0.2	1.6	4.7	2.3	0.3	3.7
Mara	1,081,594	0.2	0.7	0.9	0.1	0.8	3.9	1.5	0.2	2.8
Manyara	905,242	0.2	0.8	0.8	0.1	0.9	4.4	1.4	0.1	1.9
Njombe	493,397	0.2	1.2	1.5	0.2	1.6	5.1	2.8	0.3	2.8
Katavi	488,810	0.1	0.5	0.8	0.1	0.9	3.6	1.5	0.2	1.8
Simiyu	908,581	0.1	0.5	0.6	0.1	0.5	2.7	0.8	0.1	1.4
Geita	1,291,610	0.1	0.6	0.8	0.1	0.7	3.4	1.7	0.1	2.8
Songwe	661,619	0.2	0.7	0.9	0.2	1.3	4.5	1.9	0.2	3.7
Tanzania Zanzibar	1,034,968	1.1	2.5	2.8	0.7	4.4	3.1	5.0	0.4	9.0
Kaskazini Unguja	132,481	0.4	1.0	1.6	0.4	2.5	3.8	3.8	0.3	4.3
Kusini Unguja	109,898	0.8	1.5	2.2	0.4	4.3	6.0	5.7	0.5	8.7
Mjini Magharibi	534,084	1.6	3.3	3.8	0.9	6.2	1.5	6.2	0.5	11.8
Kaskazini Pemba	129,004	0.5	1.7	1.4	0.4	1.9	5.6	2.7	0.2	4.5
Kusini Pemba	129,501	0.5	2.0	1.5	0.4	2.0	3.7	2.8	0.3	7.2

2.3.4 Use of Mobile Phone by Occupation and Age Group

The International Labour Organisation (ILO) classifies occupations into nine broad categories namely, legislators, administrators and managers; professionals; technicians and associate professionals; clerks, service workers and shop sales workers; agricultural and fishery workers; crafts and related workers; plant and machine operators and assemblers; and elementary occupations (ILO, 2012). Mobile phone use varies significantly across these occupational categories and by age group. Younger individuals, especially those in professions requiring frequent communication and mobility, tend to use mobile phones more than older adults (ILO, 2025).

As presented in Table 2.9, overall, youth (15–19 years) and young adults (25–44 years) exhibit higher of mobile phone usage across almost all occupational categories. By contrast, older adults demonstrate lower uptake in professional and technical occupations but show relatively higher mobile phone use when engaged in agricultural, fishery, or elementary occupations. This highlights the intersection between livelihood activities, age, and access to technology, and the need to promote equitable digital inclusion. The results show that the highest proportion of mobile phone users is found among individuals aged five years and engaged in agricultural and fishery occupations (35.7%), followed by individuals engaged in elementary occupations (17.0%) and those in crafts and related occupations (11.6%). The lowest percentage is found among individuals engaged as plant and machine operators and assemblers (0.8%), followed by legislators, administrators and managers (0.4%), and clerks (0.3%).

The results further show that the highest percentage (45.0%) of individuals aged five years and above using mobile phones, and are engaged in agricultural and fishery work, is found in the older age group, particularly age groups 60-64 (45.0%), 55-59 (43.8%), and age group 50-54 (42.5%). The professional and technical and associate professional occupations are more common among individuals aged 25–39 years, with the highest percentage among individuals in the age group 30-34 years (3.2% and 4.7% respectively). Individuals engaged in Crafts and related occupations are more prominent in the age group 30-44 years. In comparison, older people aged 60 years and above are predominantly engaged in agricultural and fishery occupations, as well as elementary occupations. The percentages of individuals engaged in the Legislators, administrators and managers occupations remain very low across all age groups (Table 2.9).

Table 2.9: Percentage of Individuals Aged Five Years and Above Using Mobile Phones by Type of Occupation and Age Group; Tanzania, 2022 PHC

Age Group	Population Using Mobile Phones	Legislators Administrators and Managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop Sales Workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and Assemblers	Elementary Occupations
Total	31,571,739	0.4	1.5	2.9	0.3	4.0	35.7	11.6	0.8	17.0
5-9	627,853	0.0	0.0	0.1	0.0	0.0	2.3	0.9	0.0	1.5
10-14	992,503	0.0	0.0	0.1	0.0	0.2	6.2	2.5	0.0	3.5
15 - 19	4,037,731	0.0	0.1	1.2	0.1	2.2	36.1	8.2	0.3	16.0
20 - 24	4,717,050	0.1	0.6	2.7	0.5	4.6	35.5	11.7	0.9	18.2
25 - 29	4,215,386	0.4	2.1	4.0	0.6	5.8	33.8	13.1	1.2	18.8
30 - 34	3,567,637	0.8	3.2	4.7	0.6	5.7	34.1	13.4	1.2	18.6
35 - 39	2,904,948	0.8	2.8	4.3	0.4	5.2	36.0	13.9	1.0	18.6
40 - 44	2,474,520	0.7	2.1	3.7	0.3	5.0	38.3	14.1	0.9	18.6
45 - 49	2,101,218	0.6	1.7	3.3	0.3	4.5	40.6	13.9	0.8	18.2
50 - 54	1,702,021	0.7	1.6	3.0	0.3	3.6	42.5	13.3	0.6	17.4
55 - 59	1,155,919	0.7	1.6	2.7	0.3	3.0	43.8	12.7	0.5	16.8
60 - 64	1,052,705	0.3	0.6	1.6	0.1	2.2	45.0	11.7	0.3	16.4
65 - 69	637,837	0.3	0.5	1.2	0.1	1.7	44.7	10.6	0.2	16.0
70 - 74	557,104	0.2	0.4	0.8	0.1	1.1	44.0	9.5	0.2	15.3
75 - 79	323,823	0.1	0.3	0.6	0.0	0.8	42.5	8.2	0.1	14.9
80+	503,484	0.1	0.1	0.4	0.0	0.5	39.4	5.9	0.1	14.2

2.3.5 Use of Mobile Phone by Level of Education Attainment

When individuals' digital usage is cross tabulated by their level of education, mobile phone use is observed to rise with increasing level of education. Generally, there is a clear upward trend in the use of both non-smart and smartphones as education levels increase (ITU, 2021).

The results in Table 2.10 show that, the use of smartphones among individuals aged four years and above varies notably with education level attained, with a relatively higher percentage (6.1%) of users observed among individuals with secondary level education, followed by those with primary level education (6.0%) and those with university and other related levels of education (3.6%). Across the regions in Mainland Tanzania, Dar es Salaam has the highest percentages of individuals aged four years and above using smartphones and having attained primary (13.0%) and secondary (14.8%) education, reflecting better digital access likely linked to urbanization and educational infrastructure. Other regions with relatively high percentages of individuals using smartphones and have attained primary school education are Arusha and Pwani (8.2% each), Kilimanjaro (7.6%) and Mbeya (6.8%). Simiyu and Tabora portray the lowest (2.3% and 3.5% respectively) smartphone use among those with primary education. Similarly, other regions with relatively high percentages of individuals using smartphones and have attained secondary school education are Arusha (8.8%), Kilimanjaro (7.5%) and Pwani (6.8%). The use of smartphones among persons aged four years and above with Secondary education is lowest in Tabora (2.6%) and Kigoma (2.7%) regions.

The regions of Tanzania Zanzibar present a different pattern, in the overall use of smartphones with Mjini Magharibi region having the highest percentages of individuals aged four years and above using smartphones and having attained primary education (3.3%), 26.4 percent having attained secondary education and 7.7 percent having attained university and related levels of education. Kusini Unguja region also has a relatively high percentage (19.9%) of smartphone use among persons with secondary education and those who have attained university and related levels of education (3.4%). These regions have exhibited higher levels of smartphone use, possibly due to better urban infrastructure and tourism activities. On the other hand, the use of smartphones is relatively low for those with primary education in Kaskazini Pemba (0.6%) and Kusini Pemba (0.8%) (Table 2.10).

Table 2.10: Percentage of Individuals Aged Four Years and Above Using Smart Phones by Level of Education Attained and Region; Tanzania, 2022 PHC

Region	Number of Persons Using Mobile Phone	Pre Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other	Special Education	None/Never Attended
Total	31,665,367	0.0	6.0	0.1	0.0	6.1	0.6	3.6	0.0	0.0
Mainland Tanzania	30,627,330	0.0	6.1	0.1	0.0	5.7	0.6	3.6	0.0	0.0
Dodoma	1,632,484	0.0	5.7	0.1	0.0	4.8	0.6	3.8	0.0	0.0
Arusha	1,294,570	0.0	8.2	0.2	0.0	8.8	1.3	5.6	0.0	0.0
Kilimanjaro	1,135,692	0.0	7.6	0.2	0.0	7.5	0.9	5.1	0.0	0.0
Tanga	1,451,372	0.0	5.8	0.2	0.0	4.6	0.9	2.2	0.0	0.0
Morogoro	1,728,914	0.0	5.8	0.1	0.0	4.8	0.4	2.9	0.0	0.0
Pwani	1,163,383	0.0	8.2	0.1	0.0	6.8	0.6	3.2	0.0	0.0
Dar es Salaam	3,581,759	0.0	13.0	0.2	0.0	14.8	1.0	10.1	0.0	0.0
Lindi	682,705	0.0	4.2	0.0	0.0	2.9	0.3	1.5	0.0	0.0
Mtwara	907,020	0.0	4.3	0.0	0.0	3.1	0.3	2.0	0.0	0.0
Ruvuma	970,413	0.0	4.6	0.1	0.0	3.4	0.4	2.1	0.0	0.0
Iringa	664,541	0.0	6.6	0.1	0.0	6.6	0.7	4.3	0.0	0.0
Mbeya	1,275,935	0.0	6.8	0.1	0.0	6.6	0.5	4.1	0.0	0.0
Singida	927,997	0.0	4.7	0.1	0.0	3.1	0.4	1.9	0.0	0.0
Tabora	1,482,326	0.0	3.5	0.0	0.0	2.6	0.3	1.5	0.0	0.0
Rukwa	630,620	0.0	3.1	0.0	0.0	2.9	0.4	1.8	0.0	0.0
Kigoma	1,003,459	0.0	4.0	0.0	0.0	2.7	0.4	1.8	0.0	0.0
Shinyanga	1,050,037	0.0	4.9	0.0	0.0	3.9	0.4	2.1	0.0	0.0
Kagera	1,374,727	0.0	4.3	0.1	0.0	3.3	0.6	1.9	0.0	0.0
Mwanza	1,819,037	0.0	5.3	0.1	0.0	5.6	0.6	3.3	0.0	0.0
Mara	1,084,911	0.0	4.2	0.0	0.0	3.8	0.5	1.9	0.0	0.0
Manyara	907,655	0.0	3.9	0.1	0.0	3.0	0.4	2.3	0.0	0.0
Njombe	494,320	0.0	6.7	0.1	0.0	5.4	0.7	3.4	0.0	0.0
Katavi	490,809	0.0	3.7	0.0	0.0	2.5	0.3	1.4	0.0	0.0
Simiyu	913,225	0.0	2.3	0.0	0.0	1.9	0.3	1.3	0.0	0.0
Geita	1,295,933	0.0	3.7	0.0	0.0	2.9	0.3	1.6	0.0	0.0
Songwe	663,486	0.0	5.7	0.0	0.0	4.1	0.3	2.3	0.0	0.0
Tanzania Zanzibar	1,038,037	0.0	2.3	0.0	0.1	19.8	0.3	5.3	0.0	0.0
Kaskazini Unguja	132,692	0.0	1.5	0.0	0.1	11.0	0.1	2.1	0.0	0.0
Kusini Unguja	110,145	0.0	2.6	0.0	0.1	19.9	0.2	3.4	0.0	0.0
Mjini Magharibi	535,861	0.0	3.3	0.0	0.1	26.4	0.3	7.7	0.0	0.0
Kaskazini Pemba	129,443	0.0	0.6	0.0	0.0	9.6	0.3	2.6	0.0	0.0
Kusini Pemba	129,896	0.0	0.8	0.0	0.0	12.1	0.3	3.3	0.0	0.0

The results in Table 2.11 further show that non-smartphone use among individuals aged four years and above reveals key regional and educational differences in Mainland Tanzania and Tanzania Zanzibar. Non-smartphone use is highest among people with Primary education in Mainland Tanzania (41.5%). This shows that the majority of non-smartphone users have only completed primary education.

Very low or negligible non-smartphone use is found among those who have attained other education levels including those with Pre-primary, Pre-Form One, Special Education, and those who have never attended school (0.0% each), indicating almost a lack of non-smartphone users in these educational categories. Post-primary training, secondary education, post-secondary training, university and other related levels have very low percentages (0.2% to 12.1%) of individuals using non-smartphones. As the level of educational attainment increases beyond the primary level, the percentage of non-smartphone users drops significantly. This suggests a strong correlation between higher education levels and the adoption of smartphones.

Across all regions, the majority of non-smartphone users are those with primary education (ranging from 35% to 55%). This is in line with the national average of 40.3 percent and 41.5 percent in Mainland Tanzania. Variations in regions such as Ruvuma (54.8%), Njombe (50.5%), Mtwara (48.1%), Singida (47.1%), Mara (46.4%), and Kilimanjaro (46.3%), show that non-smartphone use is concentrated among those with only a primary level of education. This suggests that limited schooling remains closely linked with reliance on basic phones, particularly in rural regions.

In urban and more advantaged areas, the pattern shifts with Dar es Salaam having the highest non-smartphone use among those with secondary (24.1%) and university education (11.0%), followed by Arusha and Kilimanjaro regions. In contrast, regions like Tabora, Katavi, and Simiyu report very low secondary and university-level usage, reflecting limited smartphone penetration even among the better educated.

Tanzania Zanzibar differs from the Mainland Tanzania, with low percentages of non-smartphone users with primary-level education (ranging from 2.4% to 8.1%) but recording relatively high percentages for non-smartphone users with secondary-level of over 40 percent in Kusini Unguja and Mjini Magharibi regions and a relatively high university-level use of up to 8.6 percent. This suggests that in Tanzania Zanzibar, education is less of a

determining factor while affordability and access barriers play a stronger role in shaping reliance on basic phones

Overall, the findings demonstrate that primary education level is the strongest predictor of non-smartphone use nationally, particularly in rural Mainland regions. However, Zanzibar shows a different dynamic, where non-smartphone use remains significant even among the better educated, underscoring the role of economic and infrastructural factor.

Table 2.11: Percentage of Individuals Aged Four years and Above Using No-smart Phones by Level of Education Attained and Region; Tanzania, 2022
PHC

Region	Number of Persons Using Mobile Phone	Pre Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other	Special Education	None/Never Attended
Total	31,665,367	0.0	40.3	0.2	0.0	13.0	0.8	4.1	0.0	0.0
Mainland Tanzania	30,627,330	0.0	41.5	0.2	0.0	12.1	0.8	4.1	0.0	0.0
Dodoma	1,632,484	0.0	38.3	0.1	0.0	9.1	0.7	4.2	0.0	0.0
Arusha	1,294,570	0.0	36.3	0.4	0.0	16.7	1.6	6.4	0.0	0.0
Kilimanjaro	1,135,692	0.0	46.3	0.5	0.0	16.0	1.2	6.1	0.0	0.0
Tanga	1,451,372	0.0	42.1	0.5	0.0	10.3	1.3	2.6	0.0	0.0
Morogoro	1,728,914	0.0	44.8	0.1	0.0	11.2	0.6	3.4	0.0	0.0
Pwani	1,163,383	0.0	43.3	0.1	0.0	14.1	0.8	3.7	0.0	0.0
Dar es Salaam	3,581,759	0.0	36.8	0.3	0.0	24.1	1.2	11.0	0.0	0.0
Lindi	682,705	0.0	44.3	0.1	0.0	8.1	0.4	1.8	0.0	0.0
Mtwara	907,020	0.0	48.1	0.1	0.0	9.0	0.4	2.3	0.0	0.0
Ruvuma	970,413	0.0	54.8	0.2	0.0	10.1	0.6	2.6	0.0	0.0
Iringa	664,541	0.0	45.0	0.3	0.0	14.7	0.9	5.0	0.0	0.0
Mbeya	1,275,935	0.0	42.7	0.1	0.0	15.2	0.7	4.8	0.0	0.0
Singida	927,997	0.0	47.1	0.1	0.0	7.9	0.5	2.3	0.0	0.0
Tabora	1,482,326	0.0	36.1	0.1	0.0	6.4	0.4	1.8	0.0	0.0
Rukwa	630,620	0.0	38.2	0.1	0.0	8.4	0.6	2.2	0.0	0.0
Kigoma	1,003,459	0.0	39.5	0.1	0.0	6.8	0.5	2.1	0.0	0.0
Shinyanga	1,050,037	0.0	40.5	0.1	0.0	9.1	0.5	2.4	0.0	0.0
Kagera	1,374,727	0.0	42.1	0.2	0.0	9.3	0.8	2.2	0.0	0.0
Mwanza	1,819,037	0.0	39.4	0.1	0.0	13.3	0.7	3.9	0.0	0.0
Mara	1,084,911	0.0	46.4	0.1	0.0	10.7	0.7	2.3	0.0	0.0
Manyara	907,655	0.0	42.2	0.2	0.0	8.7	0.6	2.7	0.0	0.0
Njombe	494,320	0.0	50.5	0.3	0.0	12.9	0.9	4.0	0.0	0.0
Katavi	490,809	0.0	34.7	0.1	0.0	6.7	0.4	1.6	0.0	0.0
Simiyu	913,225	0.0	40.1	0.1	0.0	6.0	0.4	1.5	0.0	0.0
Geita	1,295,933	0.0	36.0	0.1	0.0	8.3	0.4	1.9	0.0	0.0
Songwe	663,486	0.0	44.9	0.1	0.0	10.5	0.4	2.7	0.0	0.0
Tanzania Zanzibar	1,038,037	0.0	6.3	0.0	0.2	37.8	0.3	6.1	0.0	0.0
Kaskazini Unguja	132,692	0.0	5.7	0.0	0.3	34.9	0.1	2.9	0.0	0.0
Kusini Unguja	110,145	0.0	8.1	0.0	0.2	42.7	0.2	3.9	0.0	0.0
Mjini Magharibi	535,861	0.0	7.8	0.1	0.1	43.1	0.4	8.6	0.0	0.0
Kaskazini Pemba	129,443	0.0	2.4	0.1	0.1	23.1	0.5	3.3	0.0	0.0
Kusini Pemba	129,896	0.0	3.1	0.0	0.1	29.2	0.4	4.0	0.0	0.0

2.3.6 Use of Mobile Phone by Type of Disability

Table 2.12 shows that the percentage of individuals with disabilities aged four years and above using mobile phones varies significantly by level of education and occupation, depending on the type of disability. Individuals with disabilities aged four years and above who use mobile phones are more likely to have attained primary level education, followed by those who have attained secondary and university levels of education. The highest percentages of persons with disability, irrespective of the type of disability, are found among those who have attained primary level of education. The highest percentage of individuals with albinism disabilities is found among those with primary (35.0%) and university education levels (4.8%), probably they are more likely to possess the knowledge and skills necessary to use mobile phones. In contrast, individuals with communication disabilities have the lowest education attainment with only 15.4 percent completed primary education and 1.2 percent university education level. This suggests that access to education plays a significant role in the likelihood of owning and using mobile technology among persons with disabilities.

Persons with albinism and seeing disabilities using mobile phones are more likely to have attained secondary education with 11.4% and 6.6% respectively, while those with communication disability have the lowest percentage at 4.0 percent. This implies that although education plays a very important role in helping persons with disabilities to use technologies like mobile phones, the type of disability also plays an important role in the use of mobile phone as it can sometimes limit the person from using the mobile phone. Very few persons with disabilities who use mobile phones have attained post-primary or post-secondary training, highlighting the need for better inclusive education systems and expanded opportunities to access and use mobile phones for persons with different types of disabilities (Table 2.12).

Table 2.12: Percentage of Persons Aged Four Years and Above Using Mobile Phone by Type of Disability and Level of Education Attained; Tanzania, 2022 PHC

Type of Disability	Total	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other Related
Seeing	2,276,843	27.2	0.2	0.0	6.6	0.5	2.7
Hearing	1,084,607	22.9	0.1	0.0	5.3	0.3	1.5
Walking	1,719,610	26.6	0.2	0.0	4.9	0.3	1.6
Remembering	859,881	22.1	0.1	0.0	4.3	0.3	1.4
Self-care	479,341	18.0	0.1	0.0	4.1	0.3	1.4
Communication	613,177	15.4	0.1	0.0	4.0	0.2	1.2
Albinism	69,956	35.0	0.2	0.0	11.4	0.8	4.8

Note: Education categories that are not in this table did not have number of person

Table 2.13 indicates that individuals aged five and above with disabilities, who use mobile phones in Tanzania are more likely to be engaged in agricultural and fishery occupations followed by those engaged in elementary and craft and related occupations. The highest percentage of individuals using mobile phones and are engaged in agricultural and fishery occupations is found among those with albinism disabilities (44.6%), followed by those walking disabilities (26.5%) and seeing disabilities (26.1%), whereas those with communication disabilities recorded the lowest percentage (18.0%). On the other hand, the percentage of persons with disabilities using mobile phones and are engaged in skilled or professional occupations (legislators, administrators and managers; professionals; and technicians and associate professionals) remains very low (below 3.0%).

Table 2.13: Percentage of Persons Aged Five Years and Above Using Mobile Phone by Type of Disability and Occupation; Tanzania, 2022 PHC

Type of Disability	Total	Legislators Administrators and Managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop Sales workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and assemblers	Elementary Occupations
Seeing	2,276,843	0.3	0.9	1.6	0.2	2.3	26.1	7.3	0.3	11.6
Hearing	1,084,607	0.2	0.5	1.2	0.1	1.8	24.1	6.4	0.3	10.5
Walking	1,719,610	0.2	0.5	1.2	0.1	1.9	26.5	6.7	0.3	11.3
Remembering	859,881	0.1	0.4	1.0	0.1	1.6	23.3	5.8	0.3	10.1
Self-care	479,341	0.1	0.4	0.8	0.1	1.2	18.5	4.0	0.2	8.5
Communication	613,177	0.2	0.8	1.3	0.2	1.8	18.0	6.1	0.3	9.4
Albinism	69,956	0.8	2.9	4.7	0.5	5.5	44.6	15.6	1.4	23.9

2.4 Conclusion

The percentage of ownership of any type of mobile phones in Tanzania is more than fifty (53.1%) for persons aged 4 years and above. Ownership of both smart and non-smart phones is higher in the 35–39 age group (27.3%) of males compared with (22.6%) of females. The highest mobile phone ownership is observed with disability of albinism

(80.9%) followed by those seeing (65.9%) and walking (65.2%), and individuals with disabilities of communication record the lowest ownership (45.3%).

On the other hand, the percentage of individuals using non-smart phones (77.9%) is relatively higher compared to that of individuals using smart phones (0.9%) and those using both smart and non-smart phones (21.6%) for both males and females and across all age groups. Regardless of the type of phones, we found that females are nearly equal to males in phone usage. However, owning a smartphone is higher (1.9%) in urban areas than in rural areas (0.9%). Youth (15–19 years) and young adults (25–44 years) are more likely to use any type of mobile phone across all occupational categories.

CHAPTER THREE

USE OF THE INTERNET FOR INDIVIDUALS

Key Points

- About fifteen percent (14.7%) of all individuals aged 4 years and above use internet, with a significant gender gap (15.8% for males against 13.6% for females).
- Young adults (20–34 years) are the most internet active users, with usage peaking at age group 25–29 (29.9%).
- Dar es Salaam Region has the highest percentage (38.8%) of Individual internet use, whereas Simiyu Region has the lowest (6.0%).
- Internet use in Tanzania Zanzibar is highest (39.3%) in Mjini Magharibi Region and lowest in Kaskazini Unguja Region (15.5%).
- A relatively higher percentage of individual internet users are engaged in agricultural and fishery occupations (20.1%) followed by those engaged in elementary occupations (18.2%).
- About twenty five percent (24.6%) of persons with albinism disability use internet.

3.1 Introduction

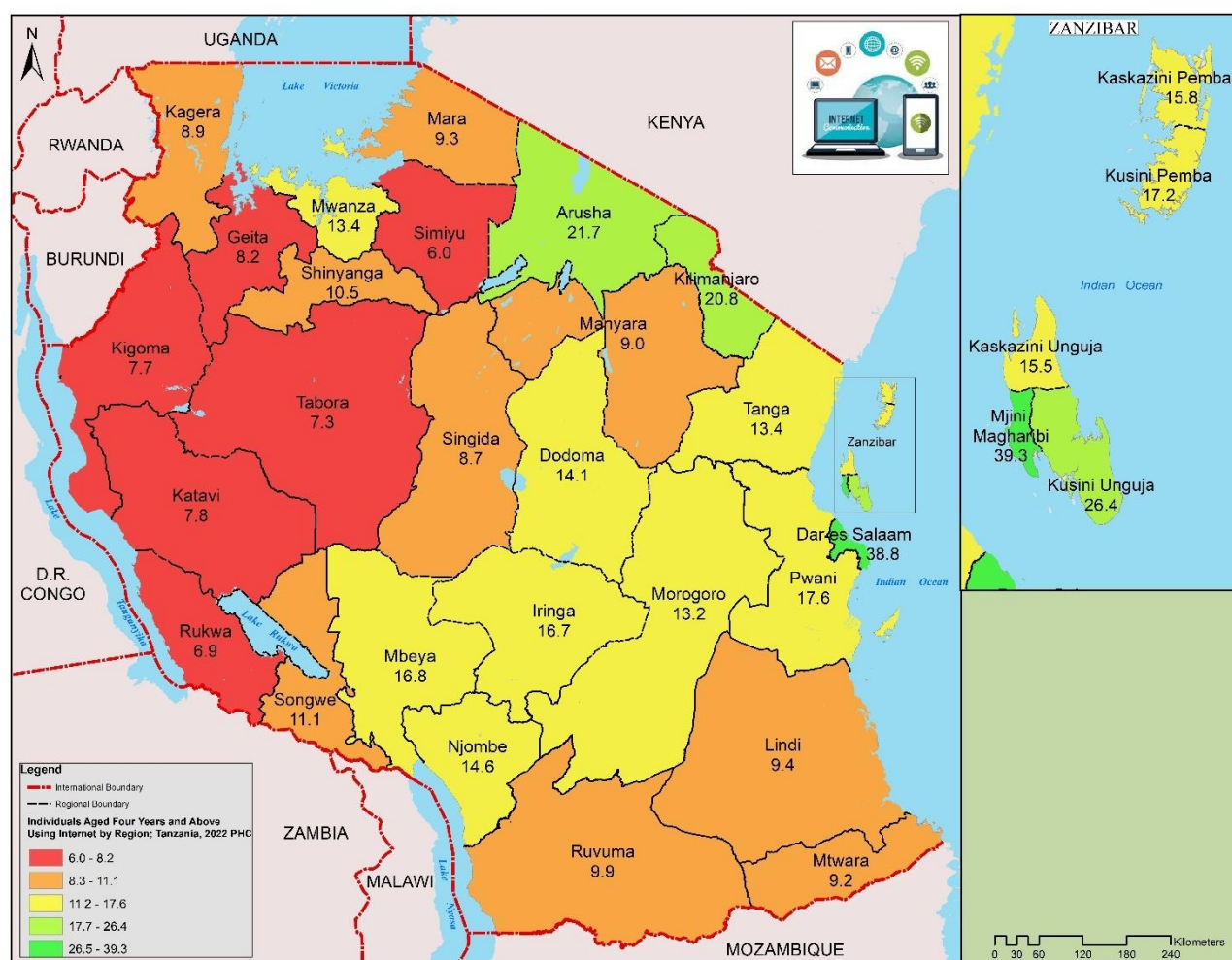
The internet has become a vital component of modern life, significantly influencing social interactions, education, employment, communication, and information access. Generally, internet use is considering a higher in urban areas compared with rural areas, reflecting better infrastructure, affordability, and access to ICT services.



Likewise, males tend to use the internet slightly more than females both in rural and urban areas, though the gender gap is narrower in urban areas. Rural women are the most disadvantaged group, pointing to a digital divide shaped by both location and gender. Therefore, finding internet use gaps in digital inclusion and guiding policy decisions to close the digital divide requires an understanding of internet usage trends across various population segments (Aderogba, K., Adeniyi, K., & Alabi, B., 2021 and Srinuan & Bohlin, 2011).

With an emphasis on several key demographic and socioeconomic aspects, this chapter examines the use of internet at the individual level. A summary of individuals who use the internet is given in Section 3.2. Differences in internet usage by age distribution, highest educational attainment, current level of schooling, occupation, and disability status are covered in Sections 3.3 through 3.6. Additionally, Map 3.1 show the percentage of individuals aged four years and above using internet by region.

Map 3.1: Percentage of Individuals Aged Four Years and Above Using the Internet by Region; Tanzania, 2022 PHC

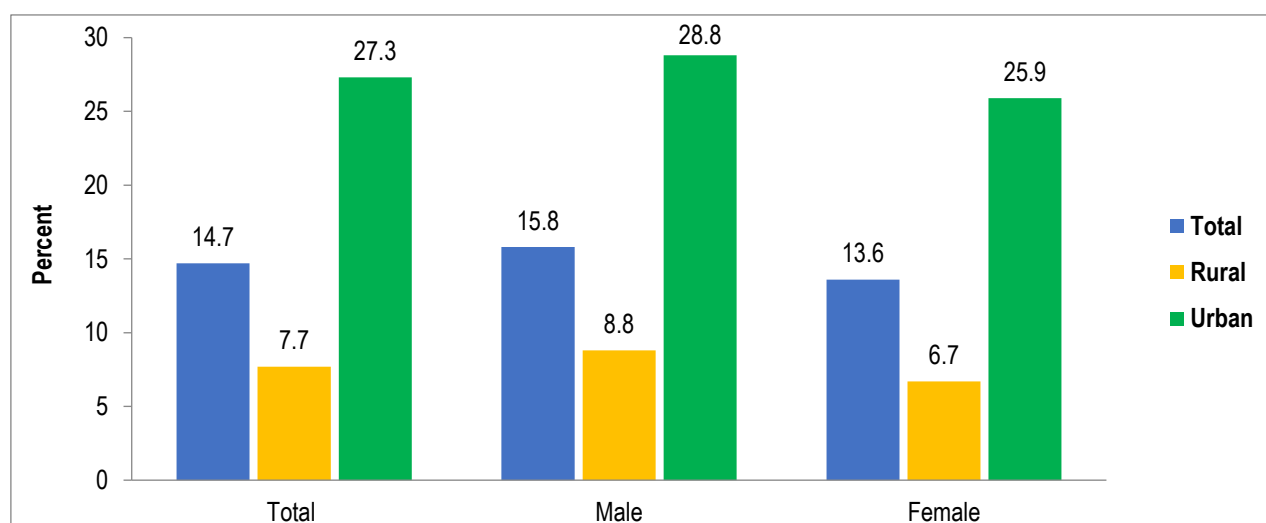


3.2 Use of the Internet

The results in Figure 3.1 present the differences in internet usage between various demographic groups and geographic regions, highlighting the presence of a digital divide in Tanzania. Table 3.1 presents the percentage of persons aged four years and above who use the internet by sex, place of residence and region. According to the 2022 Population and Housing Census results, 14.7 percent of individuals aged four years and above in Tanzania use the internet, with usage higher among males (15.8%) compared with females (13.6%). Internet usage in urban areas is more than three times (27.3%) that of rural areas

(7.7%). The high proportion of males using the internet may be explained by various factors, including traditional gender roles at home, gender roles in social relations and gender expectations regarding new technologies (Bujala, 2012).

Figure 3. 1: Percentage of Persons Aged Four Years and Above Using Internet by Sex; Tanzania, 2022
PHC



In Mainland Tanzania, the average internet usage stands at 14.2 percent, closely aligning with the national usage. However, there are notable regional disparities: Dar es Salaam records the highest internet usage (38.8%), reflecting its urban nature and advanced ICT infrastructure, whereas regions like Simiyu (6.0%) and Rukwa (6.9%) report relatively low levels. In contrast, Tanzania Zanzibar exhibit significantly higher internet penetration than Mainland Tanzania, with 28.2 percent of individuals using the internet. Within Zanzibar, Mjini Magharibi leads with the highest usage (39.3%) while Kaskazini Unguja (15.5%) and Kaskazini Pemba (15.8%) have relatively low usage. Generally, across all regions, males consistently report higher percentages of internet usage than females. However, the gap is narrower in regions with higher overall usage, such as Dar es Salaam and Mjini Magharibi. As per Census results, bridging this digital divide requires targeted interventions to expand access, particularly for female and rural populations (Katunzi, 2022); (G., 2005) (Table 3.1).

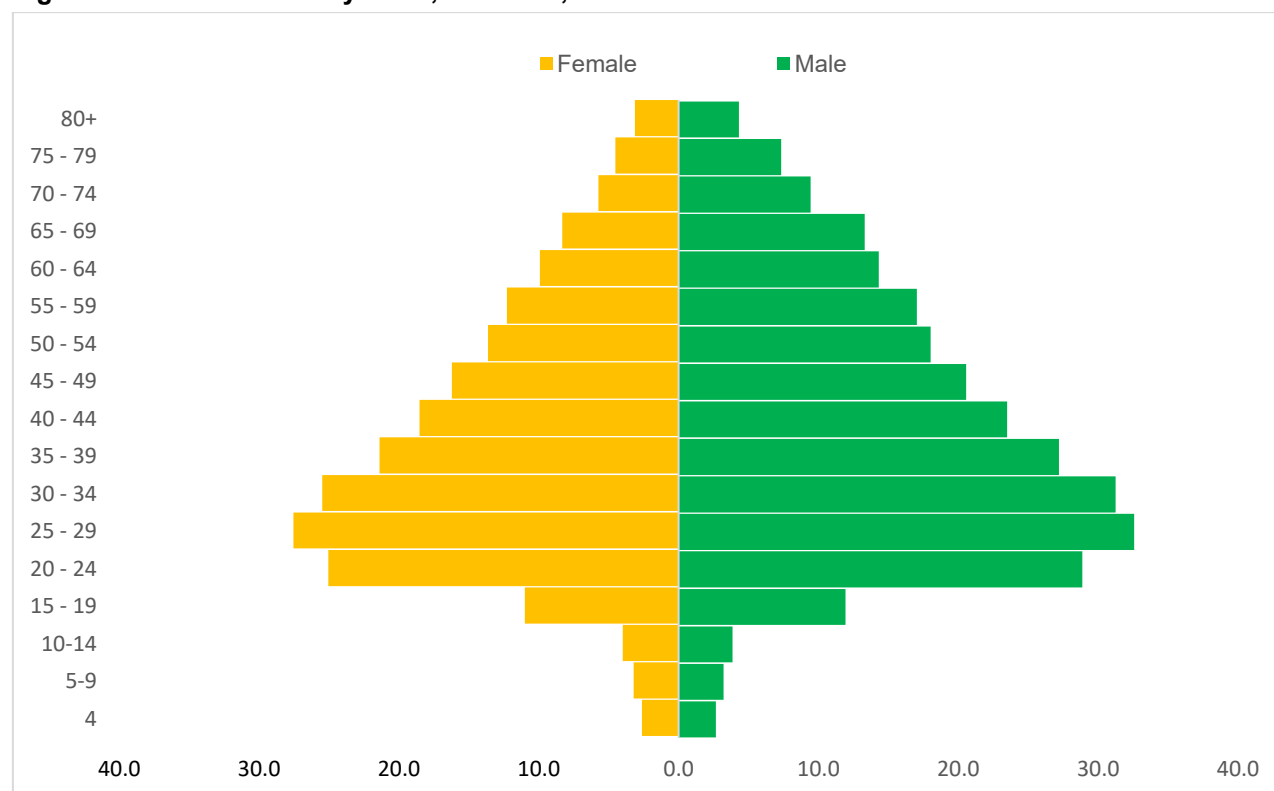
Table 3.1: Percentage of Persons Aged Four Years and Above Using Internet by Sex, Place of Residence and Region; Tanzania, 2022 PHC

Region	Number of Persons Age 4 Years and Above			Persons Using Internet		
	Total	Male	Female	Total	Male	Female
Tanzania	54,195,240	26,294,651	27,900,589	14.7	15.8	13.6
Rural	34,980,065	17,123,389	17,856,676	7.7	8.8	6.7
Urban	19,215,175	9,171,262	10,043,913	27.3	28.8	25.9
Mainland Tanzania	52,523,787	25,488,276	27,035,511	14.2	15.4	13.2
Dodoma	2,719,645	1,330,103	1,389,542	14.1	15.2	13.0
Arusha	2,072,590	983,926	1,088,664	21.7	22.9	20.6
Kilimanjaro	1,683,481	817,427	866,054	20.8	21.2	20.4
Tanga	2,319,362	1,127,431	1,191,931	13.4	14.4	12.5
Morogoro	2,835,569	1,399,490	1,436,079	13.2	14.0	12.3
Pwani	1,812,420	892,324	920,096	17.6	18.4	16.8
Dar es Salaam	4,882,714	2,349,257	2,533,457	38.8	40.2	37.5
Lindi	1,074,341	522,848	551,493	9.4	11.0	7.9
Mtwara	1,476,597	698,330	778,267	9.2	11.1	7.5
Ruvuma	1,640,028	798,976	841,052	9.9	11.0	8.8
Iringa	1,067,392	511,830	555,562	16.7	18.2	15.4
Mbeya	2,068,479	987,639	1,080,840	16.8	18.3	15.4
Singida	1,740,551	862,197	878,354	8.7	9.7	7.6
Tabora	2,906,329	1,419,783	1,486,546	7.3	8.2	6.5
Rukwa	1,319,246	634,664	684,582	6.9	8.4	5.6
Kigoma	2,117,452	1,010,431	1,107,021	7.7	9.3	6.3
Shinyanga	1,940,303	952,793	987,510	10.5	11.4	9.6
Kagera	2,598,342	1,265,138	1,333,204	8.9	9.9	7.9
Mwanza	3,227,021	1,565,936	1,661,085	13.4	14.6	12.3
Mara	2,060,759	985,175	1,075,584	9.3	10.6	8.1
Manyara	1,642,728	829,445	813,283	9.0	9.7	8.3
Njombe	799,468	376,002	423,466	14.6	16.2	13.3
Katavi	979,561	483,903	495,658	7.8	9.2	6.4
Simiyu	1,822,306	875,595	946,711	6.0	6.9	5.1
Geita	2,548,891	1,251,015	1,297,876	8.2	9.3	7.1
Songwe	1,168,212	556,618	611,594	11.1	12.7	9.7
Tanzania Zanzibar	1,671,453	806,375	865,078	28.2	29.4	27.1
Kaskazini Unguja	227,704	111,750	115,954	15.5	17.4	13.7
Kusini Unguja	174,664	87,740	86,924	26.4	27.3	25.5
Mjini Magharibi	794,689	378,417	416,272	39.3	40.2	38.4
Kaskazini Pemba	237,574	114,315	123,259	15.8	18.2	13.6
Kusini Pemba	236,822	114,153	122,669	17.2	18.6	15.9

3.2.1 Use of Internet and Age Distribution

Age is a significant determinant of internet use. Results reveal that young adults aged 20–34 are the most active users, with the highest usage (29.9%) observed in the 25–29 age group. This is in line with SDG goal 9 (target 9), which aims at increasing access to ICT including universal and affordable internet access (Affairs, 2025). Internet usage in Tanzania declines significantly after the age of 40, with a sharper drop among individuals aged 60 years and above (Figure 3.2).

Figure 3.2: Internet Use Pyramid; Tanzania, 2022 PHC

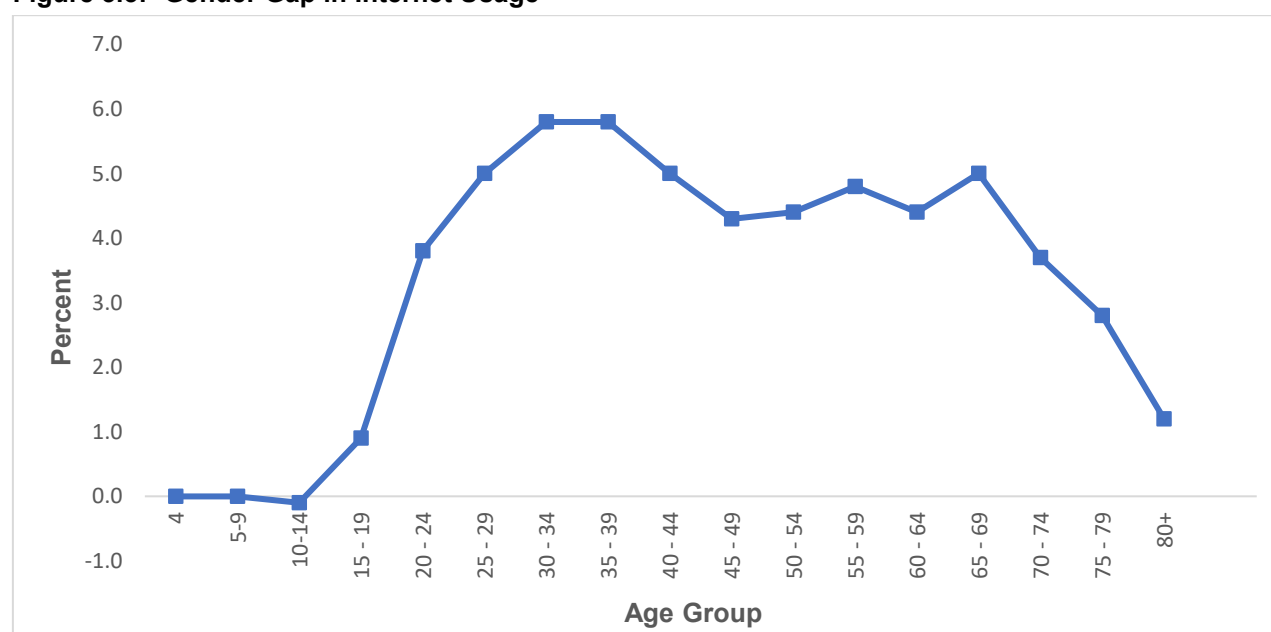


A clear gender gap is evident across all age groups, with males consistently reporting higher internet usage than females; this disparity is most noticeable among those aged 30–39. Among children and adolescents, usage remains very low below four percent for those aged 4 -14 years (Table 3.2 and Figure 3.3).

Table 3.2: Percentage of Individuals Aged Four Years and Above Using Internet by Sex and Group Age; Tanzania, 2022 PHC

Age Group	Population Age 4 years and Above			Persons Using Internet			Gender Gap (percentage points)
	Total Population	Male	Female	Total	Male	Female	
Tanzania	54,195,240	26,294,651	27,900,589	14.7	15.8	13.6	2.2
4	1,938,290	964,879	973,411	2.6	2.7	2.6	0.0
5-9	8,918,580	4,434,206	4,484,374	3.2	3.2	3.2	0.0
10-14	7,997,239	4,035,586	3,961,653	3.9	3.9	4.0	-0.1
15 - 19	6,282,391	3,096,584	3,185,807	11.5	11.9	11.0	0.9
20 - 24	5,565,953	2,560,783	3,005,170	26.8	28.9	25.1	3.8
25 - 29	4,728,149	2,220,550	2,507,599	29.9	32.6	27.5	5.0
30 - 34	3,955,937	1,902,811	2,053,126	28.3	31.3	25.5	5.8
35 - 39	3,208,340	1,532,154	1,676,186	24.2	27.2	21.4	5.8
40 - 44	2,711,507	1,315,193	1,396,314	20.9	23.5	18.5	5.0
45 - 49	2,290,045	1,121,983	1,168,062	18.3	20.6	16.2	4.3
50 - 54	1,853,385	906,155	947,230	15.8	18.0	13.6	4.4
55 - 59	1,253,343	616,934	636,409	14.6	17.0	12.3	4.8
60 - 64	1,151,078	555,227	595,851	12.0	14.3	9.9	4.4
65 - 69	704,081	329,836	374,245	10.7	13.3	8.3	5.0
70 - 74	626,872	288,957	337,915	7.4	9.4	5.7	3.7
75 - 79	374,322	166,374	207,948	5.8	7.3	4.5	2.8
80+	635,728	246,439	389,289	3.6	4.3	3.1	1.2

Figure 3.3: Gender Gap in Internet Usage



3.2.2 Use of Internet by Education Attainment

Educational attainment is the highest grade completed within the country's educational system. The Internet plays a vital role in education; it is widely used to gather information and conduct research and expand knowledge across various subjects. Table 3.3 presents the percentage of the population aged four years and above who use internet and attained different levels of education.

The results indicate a strong correlation between education attainment and internet usage across regions in Tanzania. Nationally, among internet users, the highest usage (27.4%) is among those with primary education, followed by those with secondary education (25.4%), indicating that basic education significantly enhances digital engagement. However, there is a significant proportion (14.7%) of users who have attained university education.

In the Mainland Tanzania, internet use is more pronounced among individuals with primary education across all regions. Regions like Ruvuma, Lindi, and Mtwara exhibit a higher percentage of users with primary education possibly reflecting limited access to higher education despite broad internet coverage. On the other hand, urban regions such as Dar es Salaam and Kilimanjaro report a higher percentage of users with university-level education, reflecting better infrastructure and access to tertiary education.

In Zanzibar, especially in Mjini Magharibi, the highest internet usage is observed among persons with secondary education ranging from 34.2% in Kaskazini Pemba to 49.3% in Kusini Unguja.

Table 3.3: Percentage of Individuals Aged Four Year and Above using Internet by Level of Education Attained and Place of Residence, Tanzania, 2022 PHC

Region	Total Population	Pre Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other
Total	7,940,604	0.0	27.4	0.3	0.0	25.4	2.3	14.7
Mainland Tanzania	7,469,027	0.0	28.8	0.3	0.0	24.2	2.5	14.9
Dodoma	382,770	0.0	27.5	0.3	0.0	21.3	2.4	16.3
Arusha	449,466	0.0	26.1	0.6	0.0	26.2	3.7	16.5
Kilimanjaro	349,694	0.0	28.2	0.6	0.0	25.4	2.9	17.0
Tanga	310,813	0.0	30.9	0.8	0.0	22.2	4.5	10.5
Morogoro	373,345	0.0	31.4	0.2	0.0	23.2	2.1	13.6
Pwani	318,715	0.0	33.1	0.3	0.0	25.7	2.4	11.8
Dar es Salaam	1,893,596	0.0	26.0	0.3	0.0	28.8	1.9	19.4
Lindi	100,829	0.0	34.0	0.2	0.0	20.6	2.2	10.4
Mtwara	135,423	0.0	34.7	0.2	0.0	21.9	2.2	13.5
Ruvuma	161,984	0.0	35.2	0.3	0.0	21.7	2.6	13.0
Iringa	178,716	0.0	28.3	0.5	0.0	25.7	2.5	16.3
Mbeya	347,935	0.0	28.8	0.2	0.0	25.3	1.8	15.2
Singida	150,709	0.0	34.2	0.3	0.0	20.1	2.5	12.0
Tabora	212,926	0.0	29.4	0.2	0.0	18.8	2.4	10.5
Rukwa	91,677	0.0	26.6	0.3	0.0	20.9	2.9	12.5
Kigoma	163,205	0.0	30.5	0.2	0.0	17.2	2.5	11.3
Shinyanga	202,934	0.0	30.2	0.2	0.0	21.2	2.1	10.8
Kagera	231,590	0.0	31.0	0.4	0.0	21.0	3.5	11.3
Mwanza	432,055	0.0	26.4	0.2	0.0	24.8	2.4	14.2
Mara	192,274	0.0	30.0	0.3	0.0	22.6	3.0	11.1
Manyara	148,167	0.0	29.6	0.4	0.0	19.4	2.7	14.0
Njombe	117,020	0.0	33.4	0.4	0.0	23.8	3.0	14.6
Katavi	76,372	0.0	29.6	0.2	0.0	17.2	2.2	8.8
Simiyu	108,995	0.0	27.2	0.2	0.0	16.9	2.6	11.0
Geita	208,348	0.0	28.5	0.2	0.0	19.2	1.9	10.0
Songwe	129,469	0.0	33.9	0.2	0.0	22.1	1.6	12.0
Tanzania Zanzibar	471,577	0.0	5.3	0.1	0.1	45.0	0.6	12.0
Kaskazini Unguja	35,263	0.0	6.1	0.0	0.3	44.2	0.3	8.2
Kusini Unguja	46,126	0.0	6.5	0.0	0.1	49.3	0.4	8.2
Mjini Magharibi	311,920	0.0	5.8	0.1	0.1	46.4	0.5	13.5
Kaskazini Pemba	37,542	0.0	2.2	0.1	0.1	34.2	1.1	9.4
Kusini Pemba	40,726	0.0	2.6	0.1	0.1	39.8	0.8	10.7

On the other hand, results in Table 3.4 reveal that for those who have completed school, males (28.7%) are more likely to use the internet than females (25.3%). The results further indicate that internet usage increases with increasing level of education, with the highest usage (83.7%) observed among those with university education, followed by those who completed training after secondary education (74.3%). Additionally, among individuals with higher levels of education, females are more likely to use the internet than males. This is supported by the findings that, 85.6 percent of females with university and other related education use the internet compared with 82.2 percent of males with the same level of education. Similarly, 76.7 percent of females with post-secondary training use the internet, while 72.0 percent of males do. Furthermore, 60.6% of females with A level (Form 6) secondary education use the internet compared with 56.1 percent of males. (Table 3.4).

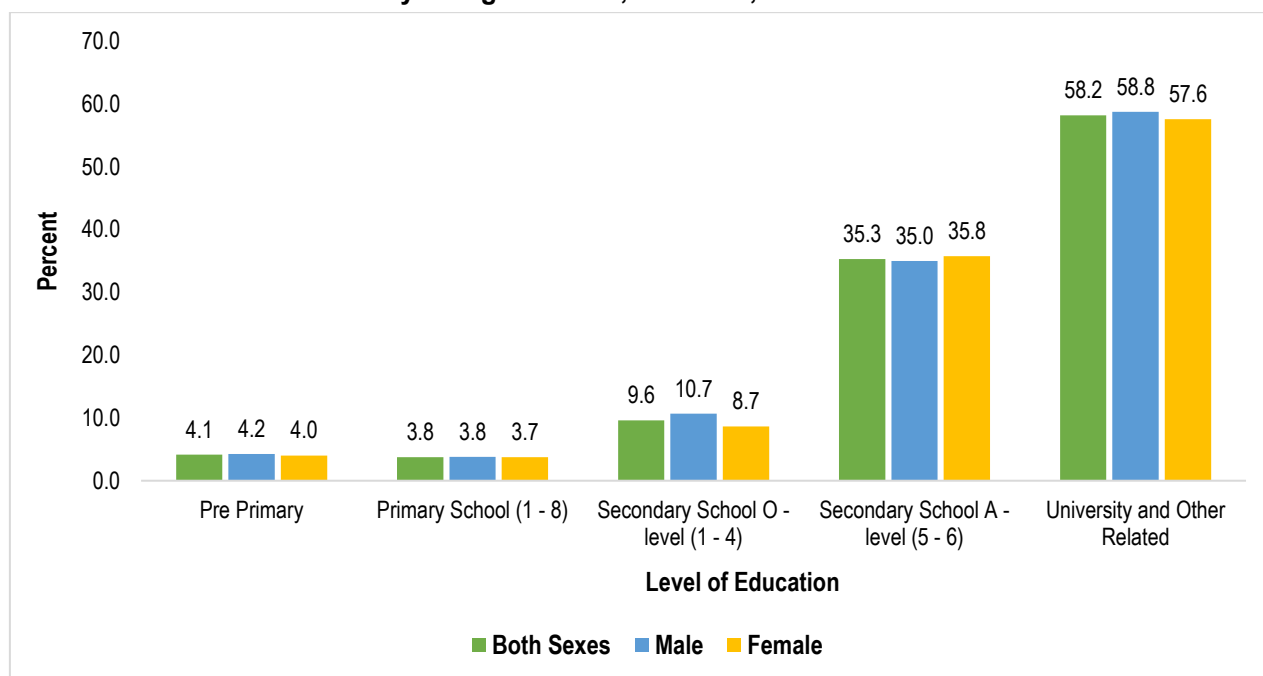
Table 3.4: Percentage of Individuals Aged Four Year and Above Who have Completed School are Using Internet Sex and Level of Education Attained: Tanzania, 2022 PHC

Level of Education	Number of Individuals Who Completed School			Persons Using Internet			Gap (percentage Point)
	Total	Male	Female	Total	Male	Female	
Total	20,649,330	10,130,083	10,519,247	27	28.7	25.3	3.4
Pre Primary	17,000	9,883	7,117	10.4	9.2	12.2	-3.0
Primary School (1 - 8)	14,427,895	6,921,143	7,506,752	15.1	16.2	14.1	2.1
Training After Primary	59,938	37,616	22,322	42.0	40.5	44.6	-4.1
Pre-Form One	6,452	3,470	2,982	35.8	36.3	35.3	0.9
Secondary School O - level (1 - 4)	4,231,859	2,064,322	2,167,537	44.1	45.2	43.1	2.1
Secondary School A - level (5 - 6)	260,940	169,823	91,117	57.7	56.1	60.6	-4.5
Training After Secondary Education	250,363	129,686	120,677	74.3	72.0	76.7	-4.6
University and Other Related	1,394,525	793,908	600,617	83.7	82.2	85.6	-3.4
Education for People with Mental Disabilities/Mental Health Disabilities	358	232	126	8.1	9.5	5.6	3.9

3.2.3 Use of Internet by Level of Education Current Attending

The findings also show a similar pattern among persons who are currently in school/institutions, where primary school students have the lowest usage (3.8%), while university students have the highest usage (58.2%). Across all education levels, currently attending males consistently portray higher internet usage than females, with the largest usage gap at the secondary ordinary education level (10.7% for males against 8.7% for females). However, at the tertiary level, this gender gap significantly narrows, with usage rates of 58.8 percent for males and 57.6 percent for females (Figure 3.4).

Figure 3.4: Percentage of Individuals Age Four and Above Using Internet by Sex and Level of Education Currently Being Attended; Tanzania, 2022 PHC



3.2.4 Use of Internet by Occupation

The results reveal that, of the 5.6 million total Internet users, 28.0 percent are employed as agricultural and fishery workers, 25.4 percent as elementary occupation workers and 15.8 percent as crafts and related occupation workers. This pattern is observed across almost all regions in Mainland Tanzania except for Dar es Salaam, Manyara and Simiyu regions. Dar es Salaam Region has a relatively higher percentage of individuals using internet and are engaged as professional workers (8.2%) and as technicians and associate professionals (10.9%). Dar es Salaam has just 11.8 percent of its internet users engaged in agriculture and fishery occupations and 33.1 percent working in elementary occupations. In Tanzania Zanzibar, Mjini Magharibi Region, displays a unique profile with considerable internet use among technicians (10.7%) and professionals (9.2%) which is indicative of higher levels of formal employment and urban access.

However, more than 40 percent of users in rural areas like Lindi, Mtwara, Ruvuma, and Manyara are involved in agriculture, indicating that even farming communities rely on digital tools probably through mobile internet for communication, services, or market information. (Table 3.5).

Table 3.5: Table Percentage of Individuals Aged Five Year and Above Using Internet by Type of Occupation and Region; Tanzania, 2022 PHC

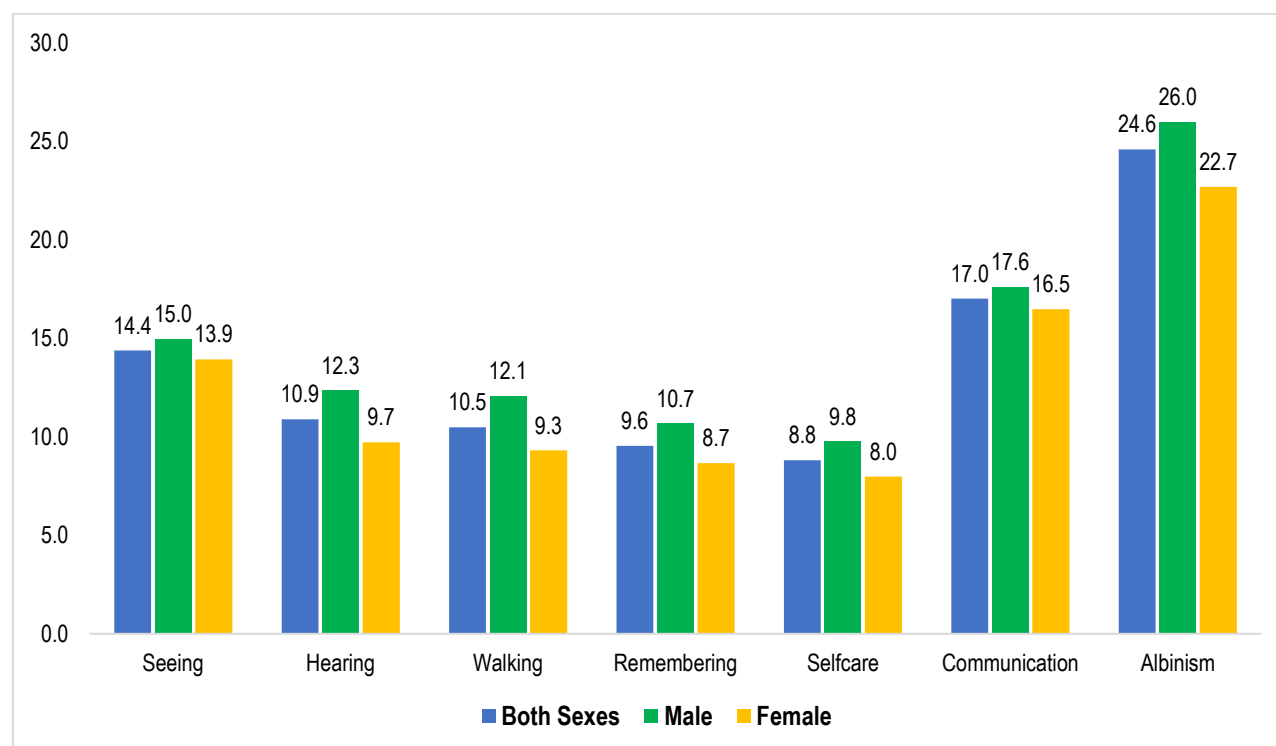
Place of Residence	Total	Legislators Administrators and managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop sales Workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and Assemblers	Elementary Occupations
Tanzania	5,689,151	1.8	6.6	8.7	1.4	10.3	28.0	15.8	1.9	25.4
Mainland Tanzania	5,377,603	1.6	6.5	8.7	1.4	10.1	29.0	15.7	2.0	25.0
Dodoma	287,743	2.1	7.3	8.6	1.7	9.5	28.1	15.7	1.8	25.3
Arusha	339,510	1.6	7.3	8.7	1.1	10.1	24.6	18.6	1.7	26.4
Kilimanjaro	267,971	1.4	7.3	7.8	1.4	8.9	32.2	17.0	1.5	22.6
Tanga	233,861	1.2	4.8	8.9	2.0	10.4	29.2	16.5	3.2	23.8
Morogoro	275,671	1.4	5.8	8.3	1.4	9.9	36.1	15.0	2.5	19.6
Pwani	230,400	1.6	5.8	8.9	1.1	10.4	30.4	16.8	2.7	22.3
Dar es Salaam	1,225,224	2.3	8.2	10.9	1.8	13.8	11.8	15.3	2.7	33.1
Lindi	79,916	1.6	4.5	7.4	1.3	7.4	42.7	13.7	1.2	20.2
Mtwara	106,490	2.1	4.5	9.2	1.9	8.7	40.6	14.2	1.6	17.3
Ruvuma	121,555	1.6	5.4	7.7	1.2	7.6	43.9	16.1	1.5	15.0
Iringa	130,219	1.3	7.2	8.2	1.0	10.1	29.8	18.9	2.2	21.2
Mbeya	271,745	1.2	5.7	7.0	1.1	9.1	30.7	15.6	1.5	28.1
Singida	113,148	1.4	5.4	6.8	1.0	7.9	42.3	15.2	1.6	18.4
Tabora	153,163	1.4	5.2	7.5	1.1	8.9	42.2	14.9	1.4	17.4
Rukwa	68,283	1.4	5.5	8.2	1.2	9.4	38.9	17.0	1.5	16.7
Kigoma	115,125	1.5	6.3	7.9	1.1	7.3	39.7	18.3	1.5	16.3
Shinyanga	148,955	1.1	5.6	7.3	0.8	8.4	32.7	14.8	1.5	27.7
Kagera	166,110	1.3	6.3	8.2	1.1	7.6	35.5	14.1	1.3	24.5
Mwanza	310,529	1.5	6.6	8.7	1.0	10.0	32.5	14.6	1.6	23.6
Mara	140,784	1.5	5.8	7.4	0.9	6.8	37.2	13.8	1.4	25.0
Manyara	110,581	1.6	6.4	6.9	1.0	7.6	44.4	13.0	1.3	17.9
Njombe	86,014	1.3	6.9	8.7	1.0	9.4	34.4	18.1	2.0	18.0
Katavi	57,001	1.3	4.5	6.9	1.1	8.8	40.9	15.7	1.7	19.0
Simiyu	75,846	1.4	5.8	7.0	1.2	6.3	45.2	11.9	0.8	20.4
Geita	161,207	1.0	4.7	6.7	1.0	6.4	35.8	16.1	1.2	27.3
Songwe	100,552	1.2	4.9	6.4	1.2	9.0	35.2	14.0	1.1	26.9
Tanzania Zanzibar	311,548	3.7	8.4	9.5	2.2	15.2	11.1	17.3	1.4	31.3
Kaskazini Unguja	26,122	2.3	5.2	8.3	2.2	13.3	22.7	21.2	1.4	23.5
Kusini Unguja	34,709	2.5	5.0	7.3	1.4	14.0	20.3	19.0	1.6	28.9
Mjini Magharibi	197,014	4.3	9.2	10.7	2.5	17.1	4.3	17.3	1.4	33.1
Kaskazini Pemba	25,913	2.8	9.0	7.5	1.9	9.7	30.1	14.3	0.9	23.8
Kusini Pemba	27,790	2.5	9.7	7.2	2.0	9.4	19.0	13.6	1.3	35.3

3.2.5 Use of the Internet by Type of Disability and Sex

Access to internet services plays a crucial role in empowering individuals, especially for persons with disabilities. Figure 3.5 shows the percentage of persons with disability aged five years and above by type of disability and sex. The 2022 PHC results reveal that the highest internet usage among people with disability is observed among those with albinism disabilities (24.6%), followed by those with communication difficulties (17.0%), seeing (14.4%), hearing (10.9%) and walking difficulties (10.5%). Individuals with self-care and remembering disabilities have the lowest percentage of internet usage (8.8% and 9.6% respectively).

The results further show that males with disabilities are more likely to use the internet across all disability types. For instance, 26.0 percent of males with albinism disabilities use the internet compared with only 22.7 percent of females. Similar trends are observed among those with seeing, hearing, walking and communication disabilities.

Figure 3.5: Percentage of Persons with Disability Aged Five Years and Above Using Internet by Type of Disability and Sex; Tanzania, 2022 PHC



3.2.6 Use of the Internet Among Persons with Disability by Level of Education Attainment

Table 3.6 shows internet usage among persons with disabilities aged four (4) years and above by type of education attained. The highest percentage of individuals with albinism disabilities is found among those with primary (9.3%) and university education levels (5.4%), probably they are more likely to possess the knowledge and skills necessary to use internet. In contrast, individuals with selfcare disabilities have the lowest education attainment with only 3.5 percent completed primary education and 1.4 percent university education level. This suggests that access to education plays a significant role in the likelihood of using internet technology among persons with disabilities.

Table 3.6: Percentage of Persons with Disabilities Using Internet by Type of Disability and Education Attainment; Tanzania, 2022 PHC

Type of Disability	Population Disability	Pre Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other	None/Never Attended
Seeing	2,276,843	0.1	5.3	0.1	0.0	4.6	0.3	2.9	0.9
Hearing	1,084,607	0.1	4.5	0.0	0.0	3.3	0.2	1.6	1.0
Walking	1,674,976	0.1	4.7	0.1	0.0	3.0	0.2	1.6	1.0
Remembering	859,881	0.1	4.1	0.0	0.0	2.6	0.2	1.3	1.1
Selfcare	479,341	0.1	3.5	0.0	0.0	2.4	0.2	1.4	1.1
Communication	613,177	0.2	7.2	0.0	0.0	3.7	0.2	3.3	2.2
Albinism	69,956	0.2	9.3	0.1	0.0	7.5	0.6	5.4	1.4

3.3 Conclusion

Internet usage in Tanzania has been steadily increasing, driven by the growth of mobile phone access, especially smartphones. While urban areas show higher connectivity rates compared to rural regions, the digital gap remains a challenge. Efforts to expand affordable internet access and digital literacy are key to ensuring inclusive digital development across the country.

CHAPTER FOUR

COMPUTER OWNERSHIP AND USAGE AT THE INDIVIDUAL LEVEL

Key Points

- Overall 2.4 percent of individuals aged four years and above own computers.
- Ownership of computers is higher in urban (4.3%) than in rural areas (1.4%).
- Ownership of computers is higher (2.9%) for males than for females (1.9%).
- Young adults (age 20-34) have relatively higher proportions of ownership of computers than their older counterparts.
- About forty two percent (41.9%) of individuals aged four years and above using computers have attained university education.
- About forty six percent (45.8%) of persons with a seeing disability using computers have attained university education.
- A relatively high proportions of persons with disabilities using computers are engaged in agriculture and fishery activities.

4.1 Introduction

Computer ownership and usage refer to the number of persons or households owning computers and how frequently they use them for various purposes. With the growth of technology, computers have become essential tools in education, business, healthcare, and personal life. The use of computers has continued to foster research and improve service delivery in various sectors. It also reduces paperwork, speeds communication and reduces labour costs.



Ownership and use of computers vary significantly by age, sex, and place of residence, with younger, urban, and male populations more likely to own and use computers compared to older, rural, and female counterparts (UNESCO, 2020).

4.2 Ownership of Computer

Computer ownership is a key indicator of digital access as computers help people learn, work, and connect with others. However, not everyone owns a computer due to challenges such as high cost, limited or unreliable electricity, and poor internet connectivity services. In many cases, urban households are more likely to have computers than rural areas, and males often have better access than females. Understanding computer ownership is important for closing the digital gap and promoting equal opportunities in education and development.

4.2.1 Ownership of Computers by Type of Computer

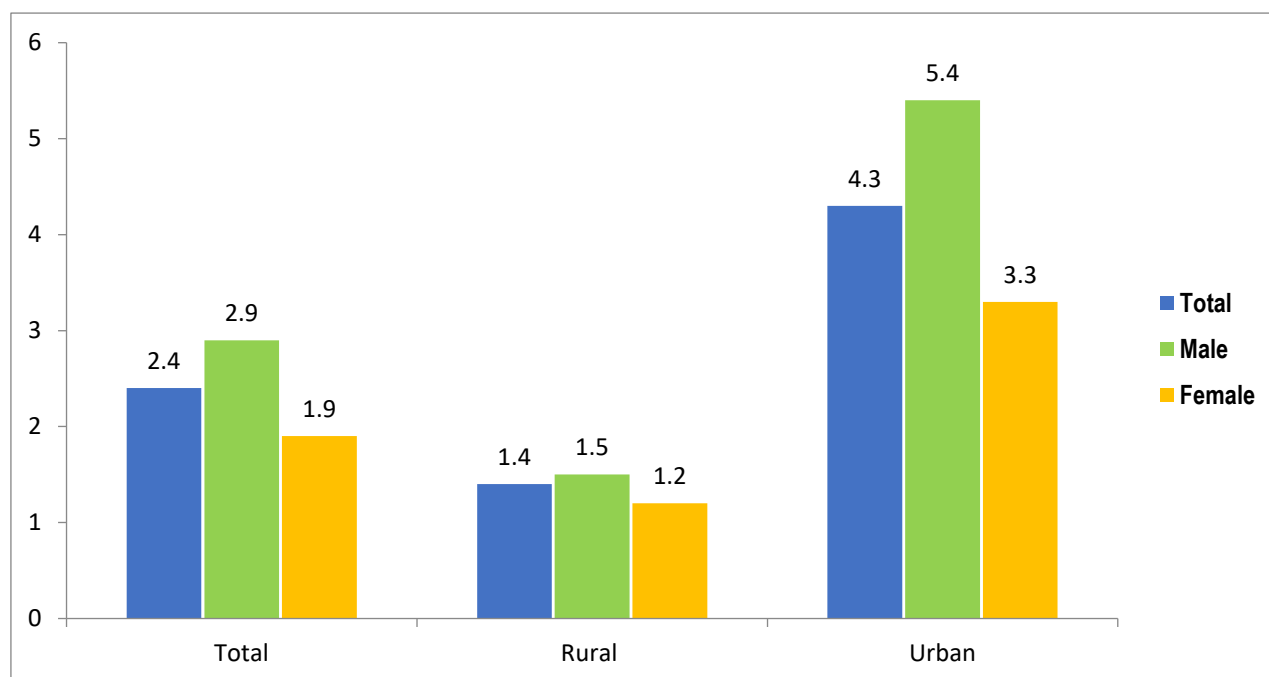
Computer ownership by type of computer refers to the distribution or percentage of households or individuals who own different types of computers. This information helps in understanding access to digital technology and can be analyzed by demographic or geographic characteristics. There are different types of computers, namely desktop computers, laptops, tablets and others.

The 2022 PHC information on individual ownership and use of computers was collected for individuals aged four years and above. This report will focus on ownership and use of desktop and laptop computers as data on tablets was not presented separately and was instead combined with that smartphones data.

4.2.2 Computer Ownership by Type of Residence

Ownership of desktop and laptop computers varies significantly between rural and urban areas, driven by factors such as income, access to electricity, education levels, and digital infrastructure. Figure 4.1 reveals that, overall 2.4 percent of individuals aged four years and above own computers; with 1.4 percent in rural areas and 4.3 percent in urban areas.

Figure 4.1: Percentage of Population Aged Four Years and Above Owning Computers by Sex and Residence; Tanzania, 2022



In Mainland Tanzania, ownership of computers varies across regions, ranging from 1.2 percent in Rukwa Region to 6.5 percent in Dar es Salaam Region. In Tanzania Zanzibar they vary from 1.6 percent in Kaskazini Pemba Region to 5.3 percent in Mjini Magharibi Region. Ownership of computers is higher in urban areas than in rural areas across all regions in Tanzania (Map 4.1) and (Table 4.1).

Map 4.1: Percentage of Individuals Aged Four Years and Above Owning Computers by Region; Tanzania, 2022 PHC

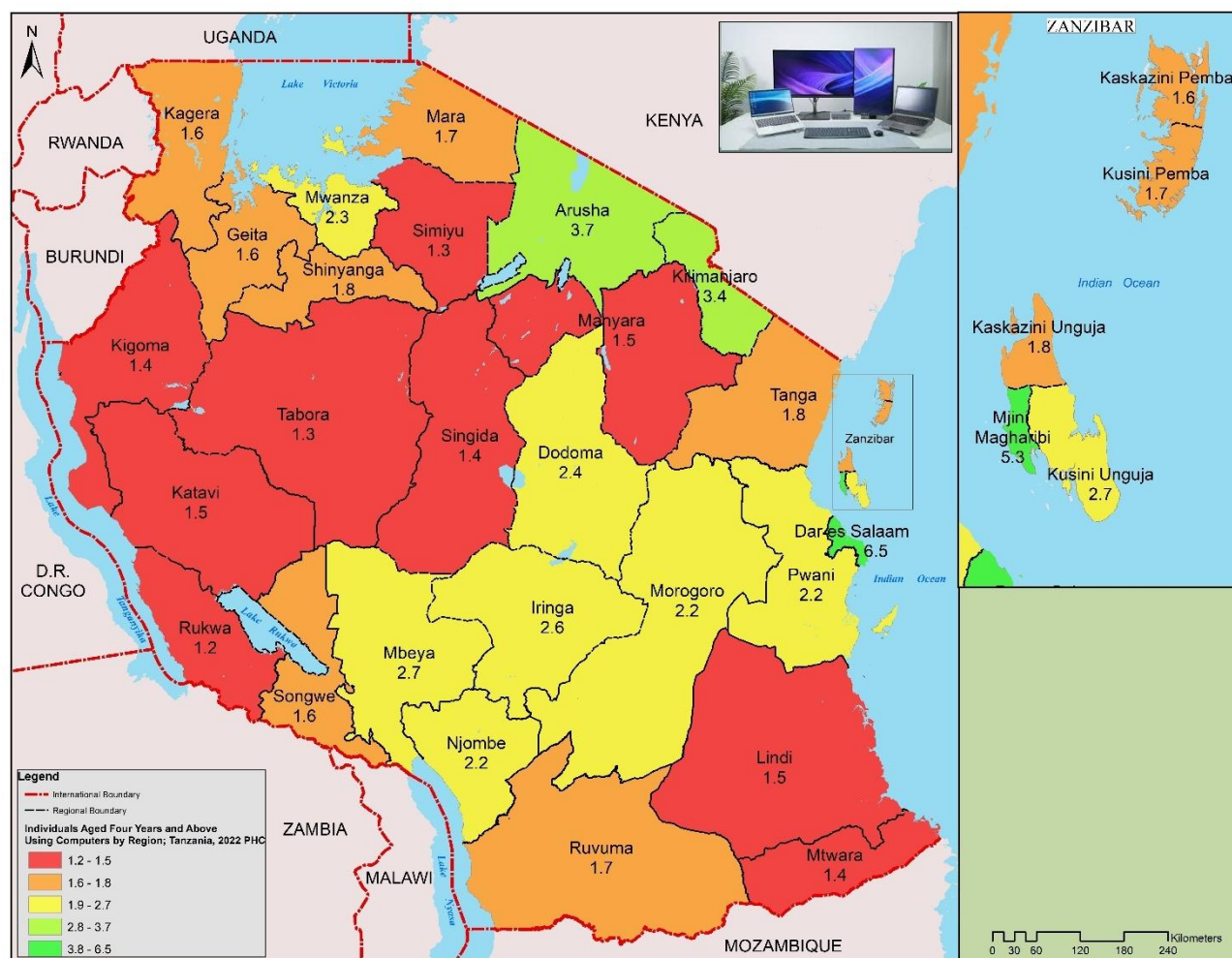


Table 4.1: Percentage of Individuals Aged Four Years and Above Owning Computers by Sex, Place of Residence and Region; Tanzania, 2022 PHC

Place of Residence	Number of Persons			Persons Owning Computers		
	Total	Male	Female	Total	Male	Female
Tanzania	54,195,240	26,294,651	27,900,589	2.4	2.9	1.9
Rural	34,980,065	17,123,389	17,856,676	1.4	1.5	1.2
Urban	19,215,175	9,171,262	10,043,913	4.3	5.4	3.3
Mainland Tanzania	52,523,787	25,488,276	27,035,511	2.4	2.8	1.9
Dodoma	2,719,645	1,330,103	1,389,542	2.4	2.9	2.0
Arusha	2,072,590	983,926	1,088,664	3.7	4.4	3.0
Kilimanjaro	1,683,481	817,427	866,054	3.4	4.0	2.8
Tanga	2,319,362	1,127,431	1,191,931	1.8	2.2	1.5
Morogoro	2,835,569	1,399,490	1,436,079	2.2	2.5	1.8
Pwani	1,812,420	892,324	920,096	2.2	2.6	1.7
Dar es Salaam	4,882,714	2,349,257	2,533,457	6.5	8.1	5.0
Lindi	1,074,341	522,848	551,493	1.5	1.8	1.2
Mtwara	1,476,597	698,330	778,267	1.4	1.8	1.1
Ruvuma	1,640,028	798,976	841,052	1.7	2.0	1.4
Iringa	1,067,392	511,830	555,562	2.6	3.2	2.0
Mbeya	2,068,479	987,639	1,080,840	2.7	3.3	2.1
Singida	1,740,551	862,197	878,354	1.4	1.6	1.2
Tabora	2,906,329	1,419,783	1,486,546	1.3	1.5	1.1
Rukwa	1,319,246	634,664	684,582	1.2	1.5	1.0
Kigoma	2,117,452	1,010,431	1,107,021	1.4	1.6	1.1
Shinyanga	1,940,303	952,793	987,510	1.8	2.0	1.5
Kagera	2,598,342	1,265,138	1,333,204	1.6	1.9	1.3
Mwanza	3,227,021	1,565,936	1,661,085	2.3	2.7	1.9
Mara	2,060,759	985,175	1,075,584	1.7	2.0	1.4
Manyara	1,642,728	829,445	813,283	1.5	1.7	1.3
Njombe	799,468	376,002	423,466	2.2	2.7	1.7
Katavi	979,561	483,903	495,658	1.5	1.8	1.3
Simiyu	1,822,306	875,595	946,711	1.3	1.5	1.2
Geita	2,548,891	1,251,015	1,297,876	1.6	1.8	1.4
Songwe	1,168,212	556,618	611,594	1.6	2.0	1.3
Tanzania Zanzibar	1,671,453	806,375	865,078	3.5	4.3	2.8
Kaskazini Unguja	227,704	111,750	115,954	1.8	2.0	1.6
Kusini Unguja	174,664	87,740	86,924	2.7	3.2	2.2
Mjini Magharibi	794,689	378,417	416,272	5.3	6.6	4.2
Kaskazini Pemba	237,574	114,315	123,259	1.6	1.9	1.2
Kusini Pemba	236,822	114,153	122,669	1.7	2.0	1.4

4.2.3 Computer Ownership by Age and Sex Distribution

Computer ownership varies with age and sex due to different reasons. Young adults are more likely to use computers, especially laptops because they are probably more educated, employed and urban residence. On the other hand, males are more likely to use computers than females because of higher labour force participation, access to education, and income disparities (UNESCO, 2020).

Table 4.2 shows that ownership of desktop computers is relatively low among younger ages (age 4-19) for both males and females. Ownership of laptops is higher than that of desktops probably because of their portability. Higher proportions of computer ownership among individuals aged four years and above are observed among the youth (age 20-34) for both males and females, with males having higher proportions than females across all age groups. The decreased ownership proportions among the elderly are probably due to lower digital literacy, cost concerns, and reduced demand. Ownership of both desktop and laptop computers is relatively higher among males than females, probably due to differences in digital access, affordability and to some extent cultural and structural norms.

Table 4.2: Percentage of Individuals Aged Four and Above Owning Computers by Type, Sex and Age; Tanzania, 2022 PHC

Age Group	Total			Desktop Only			Laptop Only			Both Desktop and Laptop		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	54,195,240	26,294,651	27,900,589	0.5	0.5	0.4	1.6	1.9	1.3	0.3	0.4	0.2
4	1,938,290	964,879	973,411	0.2	0.2	0.2	0.6	0.6	0.6	0.0	0.0	0.0
5-9	8,918,580	4,434,206	4,484,374	0.2	0.2	0.2	0.7	0.7	0.7	0.0	0.0	0.0
10-14	7,997,239	4,035,586	3,961,653	0.2	0.2	0.2	0.7	0.7	0.7	0.1	0.1	0.0
15 - 19	6,282,391	3,096,584	3,185,807	0.3	0.4	0.3	1.0	1.0	0.9	0.1	0.1	0.1
20 - 24	5,565,953	2,560,783	3,005,170	0.6	0.7	0.5	2.5	2.9	2.1	0.4	0.5	0.3
25 - 29	4,728,149	2,220,550	2,507,599	0.7	1.0	0.6	3.1	3.9	2.3	0.6	0.9	0.4
30 - 34	3,955,937	1,902,811	2,053,126	0.8	0.9	0.6	3.1	4.0	2.2	0.8	1.0	0.5
35 - 39	3,208,340	1,532,154	1,676,186	0.7	0.8	0.6	2.7	3.5	1.9	0.7	1.0	0.5
40 - 44	2,711,507	1,315,193	1,396,314	0.6	0.7	0.6	2.2	2.8	1.6	0.7	0.9	0.5
45 - 49	2,290,045	1,121,983	1,168,062	0.6	0.7	0.5	1.9	2.4	1.4	0.6	0.8	0.4
50 - 54	1,853,385	906,155	947,230	0.6	0.7	0.5	1.6	2.1	1.2	0.5	0.7	0.3
55 - 59	1,253,343	616,934	636,409	0.6	0.7	0.5	1.6	2.0	1.1	0.5	0.7	0.3
60 - 64	1,151,078	555,227	595,851	0.5	0.6	0.4	1.3	1.7	1.0	0.4	0.6	0.2
65 - 69	704,081	329,836	374,245	0.5	0.6	0.4	1.2	1.6	0.9	0.4	0.6	0.2
70 - 74	626,872	288,957	337,915	0.4	0.5	0.3	0.9	1.2	0.7	0.3	0.4	0.1
75 - 79	374,322	166,374	207,948	0.4	0.4	0.3	0.8	1.0	0.6	0.2	0.3	0.1
80+	635,728	246,439	389,289	0.3	0.3	0.2	0.6	0.6	0.6	0.1	1.1	1.1

4.3 Use of Computer at Individual Level

At the individual level, computer use plays a crucial role in daily life across various domains. People use computers for education, work, communication, entertainment, financial management, health tracking, shopping, creative work, personal organisation and social participation.

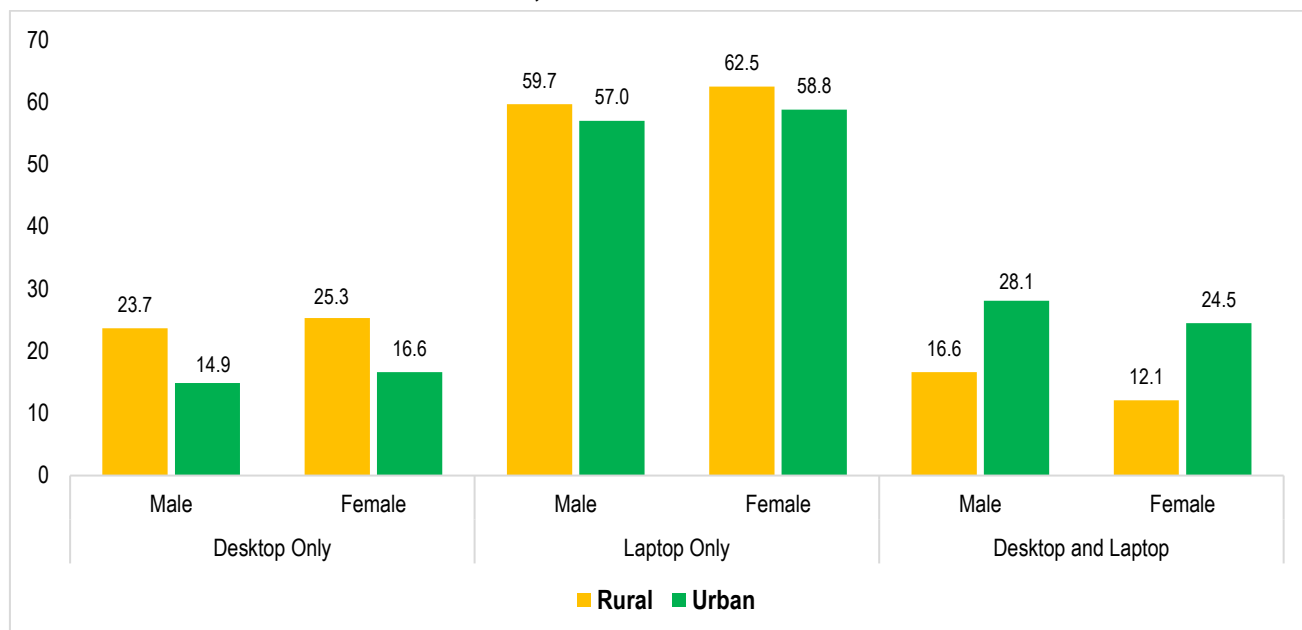
4.3.1 Use of Computer by Residence

Patterns of computer use vary noticeably by type of device, gender and location due to disparities in access to infrastructure, education, electricity, and internet connectivity services.

The results in Figure 4.2 show that, the use of laptops exceeds that of desktops, reflecting higher mobility needs, improved internet access, and more widespread adoption of portable devices. Desktops are more common in workplaces, schools, and some urban households. The higher prevalence of laptops over desktops may also be attributed to the fact that laptops are portable, require less space and can operate on battery power when electricity is unreliable.

However, contrary to expectations, the 2022 PHC results show that use of computers is higher in rural areas than in urban areas. On the other hand, the use of both desktops and laptops is higher in urban areas than in rural areas. The results further show that females have higher user rates than males probably due to increased adoption among women in education, business, and informal work (Figure 4.2).

Figure 4.2: Percentage of Individuals Age Four Years and Above Using Computers by Type, Sex and Place of Residence: Tanzania, 2022 PHC



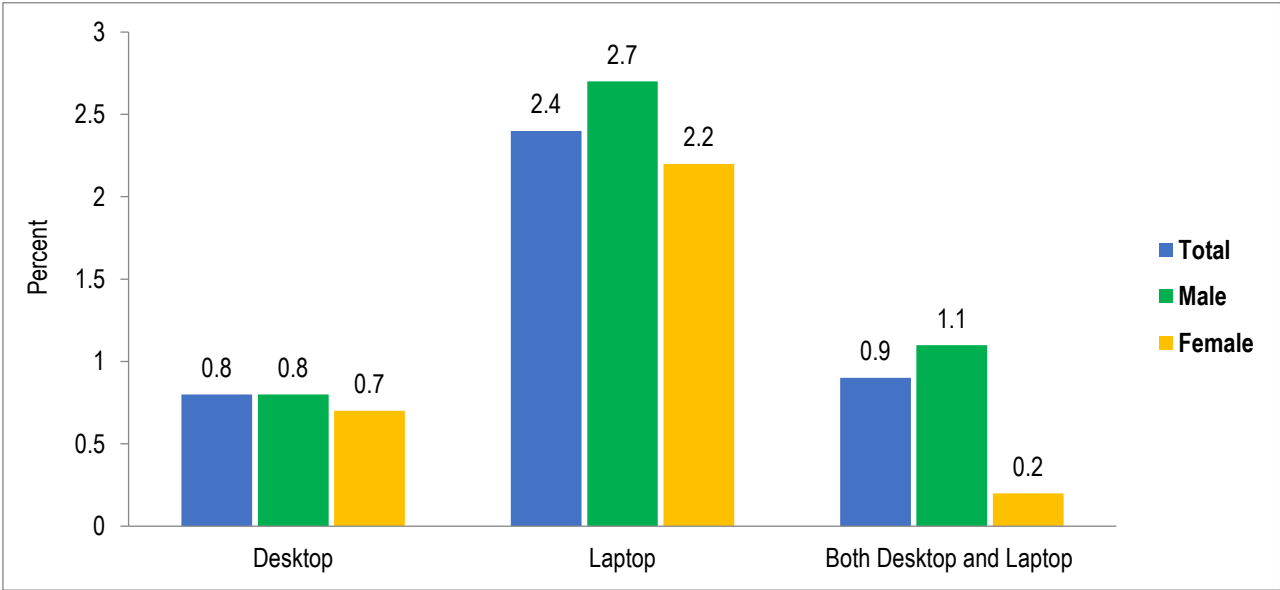
The 2022 PHC results in Table 4.3 show that 19.1 percent of individuals aged four years and above who use desktop computers only, 59.0 percent use laptops only and 21.9 percent use both desktops and laptops. The most commonly used type of computer across all regions is the laptop, followed by the use of both desktops and laptops. In Mainland Tanzania, the percentage of individuals aged four years and above using laptop computers ranges from 55.8 percent in Mtwara Region to 62.0 percent in Mwanza Region, whereas in Tanzania Zanzibar, it ranges from 55.0 percent in Kaskazini Unguja Region to 64.4 percent in Mjini Magharibi Region (Table 4.3).

Table 4.3: Percentage of Individuals Aged Four Years and Above Using Computers by Type, Sex, Place of Residence and Region; Tanzania, 2022 PHC

Place of Residence	Using Computer			Desktop only			Laptop only			Both Desktop and Laptop		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	2,171,466	1,208,733	962,733	19.1	18.3	20.2	59.0	58	60.3	21.9	23.7	19.5
Rural	851,164	462,870	388,294	24.4	23.7	25.3	61.0	59.7	62.5	14.6	16.6	12.1
Urban	1,320,302	745,863	74,439	15.7	14.9	16.6	57.8	57.0	58.8	26.6	28.1	24.5
Mainland Tanzania	2,072,917	1,154,652	918,265	19.2	18.3	20.3	59.0	58.0	60.3	21.8	23.7	19.4
Dodoma	112,626	62,612	50,014	24.6	23.8	25.5	61.0	59.8	62.6	14.4	16.4	11.9
Arusha	119,624	65,466	54,158	15.7	14.9	16.7	57.7	56.9	58.7	26.6	28.2	24.6
Kilimanjaro	91,635	50,070	41,565	17.1	16.9	17.3	59.3	57.8	61.2	23.6	25.3	21.5
Tanga	76,943	42,512	34,431	20.3	19.7	21.1	59.7	58.2	61.5	20.0	25.3	17.4
Morogoro	106,529	59,038	47,491	15.7	15.8	15.7	59.2	57.6	61.1	25.1	26.6	23.3
Pwani	71,224	39,929	31,295	19.2	18.3	20.3	59.0	58.0	60.3	21.8	23.7	19.4
Dar es Salaam	480,088	273,761	206,327	16.8	15.9	18.0	57.7	56.6	59.1	25.5	27.5	23.0
Lindi	28,473	16,185	12,288	16.4	15.4	17.6	58.3	58.0	58.7	25.3	26.6	23.7
Mtwara	38,309	21,899	16,410	21.7	19.9	23.8	55.8	55.7	56.0	22.5	24.4	20.3
Ruvuma	48,955	27,088	21,867	21.1	19.9	22.7	59.7	58.7	60.9	19.2	21.4	16.5
Iringa	48,167	27,102	21,065	19.2	18.4	20.1	60.2	58.9	61.8	20.6	22.7	18.1
Mbeya	93,549	52,865	40,684	18.5	17.7	19.6	59.6	58.6	60.9	21.9	23.7	19.6
Singida	43,124	23,819	19,305	12.8	12.3	13.4	58.4	57.8	59.2	28.8	29.9	27.4
Tabora	67,560	37,466	30,094	21.0	19.3	23.1	60.4	59.6	61.4	18.6	21.0	15.5
Rukwa	28,773	16,212	12,561	21.6	20.1	23.7	58.1	56.5	60.1	20.3	23.3	16.2
Kigoma	49,985	27,659	22,326	22.3	21.3	23.6	60.5	59.2	62.2	17.1	19.5	14.2
Shinyanga	60,272	32,825	27,447	19.5	18.3	21.0	56.1	55.3	57.3	24.3	26.4	21.7
Kagera	73,709	40,359	33,350	21.6	20.8	22.6	56.1	54.9	57.7	22.3	24.3	19.6
Mwanza	123,070	67,986	55,084	21.5	20.7	22.4	62.0	60.8	63.5	16.5	18.4	14.1
Mara	61,467	34,040	27,427	25.0	24.4	25.8	59.1	57.6	61.0	15.8	17.9	13.2
Manyara	45,081	24,928	20,153	28.0	26.8	29.6	56.2	54.5	58.3	15.8	18.7	12.1
Njombe	30,631	16,847	13,784	26.2	24.6	28.1	59.2	58.4	60.3	14.6	17.1	11.6
Katavi	26,128	14,551	11,577	20.9	20.5	21.5	61.3	59.9	63.0	17.7	19.6	15.4
Simiyu	43,123	23,006	20,117	24.9	23.7	26.3	57.4	56.7	58.3	17.7	19.6	15.3
Geita	69,831	37,670	32,161	20.1	19.5	20.9	60.4	59.2	61.9	19.5	21.3	17.2
Songwe	34,041	18,757	15,284	22.1	21.1	23.2	61.2	59.6	63.2	16.7	19.2	13.6
Tanzania Zanzibar	98,549	54,081	44,468	20.3	19.4	21.3	63.0	62.1	64.1	16.7	18.5	14.6
Kaskazini Unguja	7,227	3,825	3,402	21.6	20.4	23.0	55.0	54.5	55.7	23.4	25.1	21.3
Kusini Unguja	8,043	4,477	3,566	27.8	27.5	28.1	57.6	55.8	60.0	14.6	16.7	11.9
Mjini Magharibi	68,905	37,881	31,024	23.1	22.3	23.9	64.4	62.8	66.1	12.6	14.9	10.0
Kaskazini Pemba	6,871	3,828	3,043	23.0	23.1	22.9	64.1	62.0	66.5	12.9	14.9	10.6
Kusini Pemba	7,503	4,070	3,433	23.4	23.1	23.7	57.6	55.5	60.3	19.0	21.4	16.0

The 2022 PHC collected information on computer use by age and sex for persons aged four years and above. Table 4.2 indicates that the percentage of individuals aged four years and above using computers is 0.8 percent for desktop computers, 2.4 percent for laptops and 0.9 percent for those owning both desktop and laptop computers. Ownership of computers (irrespective of the type) is higher among males than among females, with males more likely to own both desktops and laptops (Figure 4.3).

Figure 4.3: Percentage of Individual Age Four Years and Above Using Computer by Type and Sex; Tanzania, 2022 PHC



4.3.2 Use of Computer by Type of Computer, Sex and Age

The increasing integration of Information and Communication Technologies (ICTs) into everyday life has significantly influenced the way people access information, work, communicate, and engage in services. In Tanzania, computer use varies notably by age, sex, and place of residence. Understanding these patterns helps inform inclusive ICT policy, digital literacy initiatives, and equitable access strategies.

The use of computers among individuals aged 4 years and above increases with age (irrespective of the type) peaking in the age group 30-34. before decreasing in older age groups. Furthermore, individuals aged 20 – 30 consistently shows a higher proportion of computer use across all types of computers.

The percentage of individuals using laptops is relatively higher compared with that of individuals using desktops for both males and females and across all age groups. Overall,

young adults (age 20–34 years) are more likely to use computers than their older counterparts (Table 4.4).

Table 4.4: Percentage of Individual Age Four Years and Above Using Computer by Type, Sex and Age; Tanzania, 2022 PHC

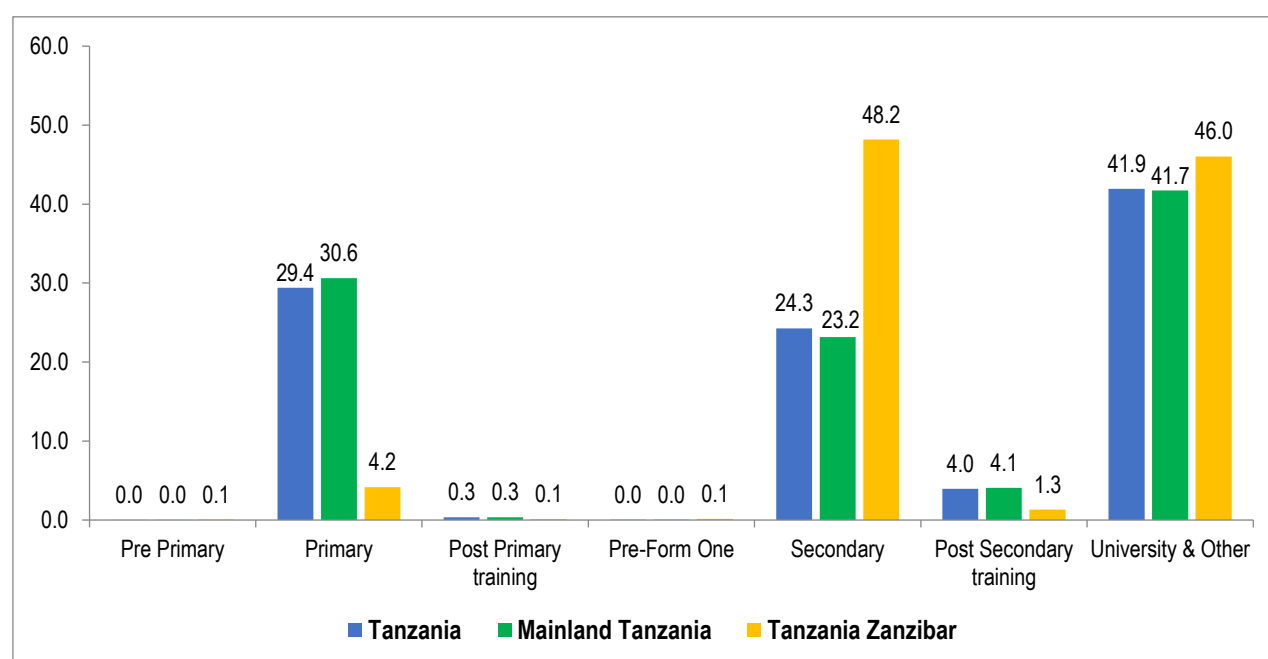
Age Group	Total			Desktop Only			Laptop Only			Both Desktop and Laptop		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	54,195,240	26,294,651	27,900,589	0.8	0.8	0.7	2.4	2.7	2.1	0.9	1.1	0.7
4	1,938,290	964,879	973,411	0.3	0.3	0.3	1.1	1.0	1.1	0.1	0.1	0.1
5-9	8,918,580	4,434,206	4,484,374	0.4	0.4	0.4	1.3	1.3	1.3	0.1	0.1	0.1
15-14	7,997,239	4,035,586	3,961,653	0.4	0.4	0.4	1.4	1.4	1.4	0.2	0.2	0.2
15 - 19	6,282,391	3,096,584	3,185,807	0.7	0.7	0.7	1.9	1.9	1.8	0.5	0.6	0.5
20 - 24	5,565,953	2,560,783	3,005,170	1.0	1.2	0.9	3.6	4.2	3.2	1.4	1.7	1.1
25 - 29	4,728,149	2,220,550	2,507,599	1.2	1.4	1.0	4.0	4.8	3.3	1.8	2.3	1.3
30 - 34	3,955,937	1,902,811	2,053,126	1.2	1.4	1.0	3.9	4.8	3.1	1.9	2.5	1.4
35 - 39	3,208,340	1,532,154	1,676,186	1.1	1.2	1.0	3.4	4.1	2.7	1.7	2.3	1.2
40 - 44	2,711,507	1,315,193	1,396,314	1.0	1.1	0.9	2.9	3.4	2.3	1.5	1.9	1.1
45 - 49	2,290,045	1,121,983	1,168,062	1.0	1.1	0.9	2.5	3.0	2.1	1.3	1.6	0.9
50 - 54	1,853,385	906,155	947,230	0.9	1.0	0.8	2.3	2.7	1.9	1.1	1.5	0.8
55 - 59	1,253,343	616,934	636,409	1.0	1.0	0.9	2.2	2.6	1.8	1.1	1.5	0.7
60 - 64	1,151,078	555,227	595,851	0.8	0.9	0.7	2.0	2.4	1.6	0.7	1.0	0.5
65 - 69	704,081	329,836	374,245	0.8	0.9	0.6	1.9	2.3	1.5	0.7	1.0	0.4
70 - 74	626,872	288,957	337,915	0.6	0.7	0.5	1.5	1.8	1.3	0.5	0.7	0.3
75 - 79	374,322	166,374	207,948	0.6	0.7	0.5	1.4	1.6	1.2	0.3	0.5	0.2
80+	635,728	246,439	389,289	0.4	0.5	0.4	1.1	1.2	1.1	0.2	0.2	0.1

4.3.3 Use of Computers by Education

Computer use varies significantly based on individuals' levels of education. As depicted in Figure 4.4, higher education levels are strongly correlated with increased computer literacy and the frequency of using computers. For instance, at the primary level, individual use of computers is limited due to low exposure in early schooling and lack of advanced technical training. Their use is usually basic, such as accessing entertainment or simple internet browsing. At the secondary level, students typically use computers for assignments, communication (emails, social media), and basic online research. Schools and training programs at this level also begin integrating computer-based learning. However, at the tertiary level (university and colleges), students use computers extensively for academic research, online learning, programming, design, and collaboration through digital platforms. Computer use is considered essential for completing coursework and accessing educational resources. Students attending vocational and professional training use specialized software and applications relevant to their fields (e.g., data analysis tools, accounting software, etc.). At postgraduate and research levels, advanced computer use is common, including data analysis, scientific simulations, professional software, and online collaborative research tools (Wasif et al., 2012).

Results in Figure 4.4 show that in Tanzania, the highest percentage (41.9%) of individuals aged four years and above who use computers have attained university education, followed by 29.4 percent and 24.3 percent who have attained primary and secondary education, respectively. A similar pattern is observed in Mainland Tanzania. On the other hand, individuals aged four years and above using computers in Tanzania Zanzibar who have attained secondary education are 48.2 percent, university education (46.0%), and primary education (4.2%) (Figure 4.4).

Figure 4.4: Percentage of Individuals Aged Four Years and Above Using Computers by Education Attainment; Tanzania, 2022



Across regions in Mainland Tanzania (Table 4.5), Dar es Salaam has the highest percentage (40.6%) of individuals aged four years and above using computers and having attained a university level education and secondary education (18.0%). In contrast, Ruvuma Region has the highest percentage (30.2%) of computer users who have completed primary education.

In Tanzania Zanzibar, Mjini Magharibi has the highest percentage (30.8%) of individuals aged four years and above using computers and have attained a university level education; Kaskazini Unguja and Kusini Unguja Regions have the highest percentage (3.7% each) of computer users with primary education, whereas Kusini Unguja Region has the highest percentage (32.2%) of those using computers and who have attained secondary education (Table 4.5).

Table 4.5: Percentage of Individuals Aged Four Years and Above Using Computers by Educational Level Attained and Region; Tanzania, 2022 PHC

Place of Residence	Total	Pre-Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University and Other Related
Total	2,171,466	0.0	17.7	0.2	0.0	14.6	2.4	25.2
Mainland Tanzania	2,072,917	0.0	18.4	0.2	0.0	13.9	2.5	25.1
Dodoma	112,626	0.0	15.0	0.2	0.0	11.9	2.6	30.0
Arusha	119,624	0.0	14.0	0.4	0.0	16.2	4.0	30.3
Kilimanjaro	91,635	0.0	18.6	0.4	0.0	15.0	2.8	29.0
Tanga	76,943	0.0	20.0	0.5	0.0	12.7	5.0	20.1
Morogoro	106,529	0.0	21.2	0.2	0.0	13.0	2.1	22.1
Pwani	71,224	0.0	21.1	0.2	0.0	16.8	2.9	23.1
Dar es Salaam	480,088	0.0	11.5	0.2	0.0	18.0	2.2	40.6
Lindi	28,473	0.0	25.3	0.2	0.0	11.7	2.4	17.3
Mtwara	38,309	0.0	25.6	0.2	0.0	12.9	2.2	22.2
Ruvuma	48,955	0.0	30.2	0.2	0.0	12.1	2.2	16.3
Iringa	48,167	0.0	19.3	0.3	0.0	15.8	2.6	26.9
Mbeya	93,549	0.0	20.0	0.1	0.0	15.9	1.7	23.5
Singida	43,124	0.0	23.9	0.2	0.0	10.5	2.3	16.5
Tabora	67,560	0.0	20.0	0.1	0.0	9.5	2.2	13.8
Rukwa	28,773	0.0	20.3	0.2	0.0	11.1	2.4	15.4
Kigoma	49,985	0.0	22.1	0.1	0.0	8.7	2.0	14.5
Shinyanga	60,272	0.0	18.3	0.1	0.0	7.2	1.7	12.1
Kagera	73,709	0.0	22.3	0.2	0.0	11.5	3.0	15.4
Mwanza	123,070	0.0	18.9	0.2	0.0	13.7	2.1	20.8
Mara	61,467	0.0	23.9	0.2	0.0	12.4	2.6	14.3
Manyara	45,081	0.0	22.0	0.2	0.0	10.0	2.0	16.8
Njombe	30,631	0.0	25.6	0.3	0.0	14.8	3.1	22.0
Katavi	26,128	0.0	20.4	0.1	0.0	8.4	1.8	11.0
Simiyu	43,123	0.0	21.6	0.1	0.0	7.4	1.7	10.8
Geita	69,831	0.0	20.4	0.1	0.0	9.4	1.4	11.1
Songwe	34,041	0.0	24.5	0.1	0.0	13.4	1.4	17.1
Tanzania Zanzibar	98,549	0.0	2.5	0.1	0.1	28.9	0.8	27.6
Kaskazini Unguja	7,227	0.0	3.7	0.0	0.2	27.5	0.3	12.5
Kusini Unguja	8,043	0.0	3.7	0.1	0.2	32.2	0.7	22.1
Mjini Magharibi	68,905	0.0	2.5	0.1	0.1	30.3	0.7	30.8
Kaskazini Pemba	6,871	0.0	1.2	0.1	0.1	20.0	1.3	21.0
Kusini Pemba	7,503	0.0	1.1	0.1	0.1	18.3	1.2	19.2

4.3.4 Use of Computer by Level of Education Attained and Type of Disability

Table 4.6 illustrates that educational attainment among individuals with disabilities varies considerably depending on the type of disability. Those with seeing disabilities have the highest proportion (45.8%) achieving university education. whereas individuals with communication disabilities have the lowest (11.1%), with the majority (68.2%) only attaining primary education. Most persons with hearing, walking, remembering, self-care difficulties and albinism have completed primary education, with about one-fifth reaching secondary school and around one-third attaining university education. Very few persons with disabilities have access to post-primary or post-secondary training, indicating a need for more inclusive and accessible educational pathways across all levels.

Table 4.6: Percentage of individuals Aged Four Years and Above With Disability Using Computer by Level of Education Attained and Type of Disability; Tanzania, 2022 PHC

Type of Disability	Total	Pre Primary	Primary	Post Primary Training	Pre-Form One	Secondary	Post Secondary Training	University & Other Related
Seeing	60,692	0.1	28.4	0.4	0.0	21.6	3.6	45.8
Hearing	19,396	0.1	42.4	0.5	0.1	22.0	3.3	31.6
Walking	28,864	0.1	41.9	0.5	0.1	21.4	3.3	32.8
Remembering	12,898	0.1	42.5	0.5	0.0	22.1	3.1	31.6
Selfcare	7,174	0.2	42.0	0.5	0.0	22.4	3.2	31.6
Communication	33,634	0.1	68.2	0.4	0.0	18.6	1.5	11.1
Albinism	3,801	0.1	33.8	0.6	0.1	22.7	3.8	39.0

4.3.5 Use of Computers by Type of Occupation

The use of computers varies significantly across different occupational groups. Generally, occupations that require information processing, communication, and documentation tasks report higher rates of computer use. Generally, computer use is higher among professionals and administrative workers in urban areas than in rural settings and is also higher in male-dominated occupations (i.e., ICT and Engineering). Younger workers in skilled occupations also have higher adoption rates due to better digital literacy (James, J., 2018).

The 2022 PHC results in Table 4.7 reveal that a relatively higher percentage (19.3%) of individuals using computers are involved in agricultural and fishery activities, followed by those in elementary occupations (14.1%) and professionals (9.1%). Plant and machine operators and assemblers represent the smallest group of occupations (1.0%) of computer users.

Across occupational categories, agricultural and fishery workers, workers engaged in elementary occupations, and professional workers are more likely to use computers across almost all groups compared with other occupational groups. Youth (age 20-24 years) and young adults (age 25-44 years) are more likely to use computers across all occupational categories. Furthermore, older adults engaged in agricultural and fishery occupations and those engaged in elementary occupations are more likely to use computers than older adults working in other occupational groups.

Table 4.7: Percentage of Individuals Aged Five Years and Above Using Computers by Age and Type of Occupation; Tanzania, 2022 PHC

Age Group	Total	Legislators Administrators and Managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop Sales Workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and Assemblers	Elementary Occupations
Total	2,143,556	2.3	9.1	6.9	1.5	5.4	19.3	8.3	1.0	14.1
5-9	155,621	0.0	0.0	0.1	0.0	0.0	1.2	0.6	0.0	1.1
10-14	158,266	0.0	0.0	0.1	0.0	0.1	2.8	1.3	0.0	2.0
15 - 19	194,780	0.1	0.2	1.6	0.2	3.0	29.4	7.9	0.4	17.2
20 - 24	338,419	0.4	2.6	4.4	1.8	6.2	24.4	9.3	1.0	18.2
25 - 29	332,021	1.9	11.2	9.2	2.2	8.2	19.3	10.0	1.5	17.2
30 - 34	278,513	3.8	17.5	12.0	2.3	7.7	16.9	9.6	1.4	15.3
35 - 39	198,625	4.8	18.6	11.8	2.1	6.8	17.7	9.5	1.3	14.8
40 - 44	144,514	5.0	16.9	10.6	1.8	6.6	19.7	10.2	1.3	15.1
45 - 49	109,595	5.0	15.0	9.9	1.5	6.4	22.2	10.4	1.3	15.4
50 - 54	80,378	5.0	13.8	9.3	1.6	5.5	24.4	10.3	1.2	15.2
55 - 59	53,356	4.8	13.0	9.1	1.9	4.9	26.1	9.9	1.0	14.4
60 - 64	40,173	2.3	5.8	4.6	0.6	4.4	32.8	10.6	0.7	16.3
65 - 69	23,382	1.9	5.0	3.8	0.5	3.7	34.0	9.5	0.6	15.8
70 - 74	16,280	1.5	4.1	2.6	0.3	2.5	35.3	8.9	0.4	15.4
75 - 79	8,464	1.1	2.6	1.9	0.2	1.9	37.2	8.1	0.3	14.6
80+	11,169	0.4	0.9	1.0	0.1	1.1	36.8	6.2	0.1	14.9

4.3.6 Use of Computer by Type of Occupation and Disability

The use of computers by individuals with disabilities in relation to occupation is significantly influenced by the type and severity of disability, availability of assistive technologies, and inclusive policies. Access and usage vary across disability categories, such as visual, hearing, physical/mobility, speech, and cognitive disabilities.

Table 4.8 shows that among persons with disabilities, a significant proportion are engaged in agricultural and fishery occupations, especially those with self-care (37.4%), remembering (37.2%), walking and hearing (36.4% each), and seeing and albinism disabilities (28.5% each). In contrast, computer use is notably higher among those in professional, technical, and clerical jobs, particularly among persons with seeing and albinism disabilities, where (14.6% and 12.8%) of individuals are professionals and (9.8% and 9.5%) respectively are technicians.

The high percentage of computer use among persons with disabilities work in agriculture and fishery occupations where computer use is generally low, raises concern about digital exclusion in rural or farming contexts. This suggests the need for targeted interventions to improve digital access and computer skills for persons with disabilities in these agricultural occupations.

Table 4.8: Percentage of Persons Aged Five Years and Above Using Computers by Type of Disability and Occupation, Tanzania, 2022 PHC

Type of Disability	Total	Legislators Administrators and Managers	Professionals	Technicians and Associate Professionals	Clerks	Service Workers and Shop Sales Workers	Agricultural and Fishery Workers	Craft and Related Workers	Plant and Machine Operators and Assemblers	Elementary Occupations
Seeing	67,859	3.9	14.6	9.8	2.3	7.8	28.5	11.4	1.2	20.6
Hearing	23,711	2.2	9.0	7.7	1.5	6.6	36.4	12.7	1.2	22.7
Walking	33,395	2.5	9.5	7.9	1.5	6.6	36.4	12.3	1.1	22.2
Remembering	15,732	2.2	8.5	7.5	1.6	6.5	37.2	12.2	1.1	23.2
Selfcare	8,473	2.4	9.0	6.8	1.5	6.2	37.4	11.7	1.2	23.7
Albinism	3,951	3.8	12.8	9.5	1.5	7.9	28.5	11.7	1.8	22.3

4.4 Conclusion

Ownership and Use of computers in Tanzania is quite low but there is every indication that ownership and use of computers particularly for the youth and young adults is increasing. Overall, 2.4 percent of individuals aged four years and above own computers. Ownership and use of computers is higher in urban areas (4.3%) than in rural areas (1.4%). It is also higher for males (2.9%) than for females (1.9%). Higher proportions of ownership of computers among individuals aged four years and above are observed among the youth (age 20-34) for both males and females with males having higher proportions than females across all age groups.

CHAPTER FIVE

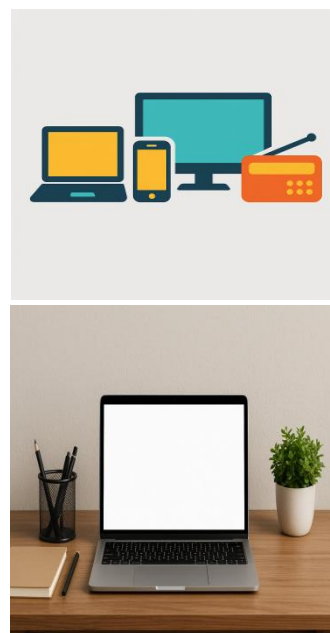
OWNERSHIP AND MAIN DISPOSAL MODES OF ICT EQUIPMENT

Key Points

- Most households in Tanzania own mobile phones (85.3%).
- Ownership of mobile phones is higher in urban areas (93.1%) compared with rural areas (80.1%).
- The largest percentage of ICT equipment ownership gender gap (46 percentage points) is observed in computer/laptop ownership.
- The percentage of ICT equipment ownership in male headed households is more than twice that of female headed households.
- Urban households (72.1%) and rural households (52.1 %) mix e-waste with other refuse.

5.1 Introduction

Household ownership of (ICT) equipment refers to the availability and use of digital devices such as mobile phones, computers, laptops, tablets, televisions, and internet connectivity tools within a household. It is a key indicator of digital inclusion and reflects the level of access to information, communication, and online services. The analysis in this chapter is based on the information on ICT ownership collected from all enumerated private households during the 2022 PHC. This includes household ownership by type of equipment owned, ownership by rural and urban areas and ownership by socio-economic factors. It also describes the main methods used by households in disposing their ICT equipment in Tanzania. It is worth noting that the questions on ownership of ICT equipment asked in the 2002 Census are not the same as those asked in the 2022 Census which implies that they are not directly comparable.



5.2 Household Owning ICT Equipment by Type

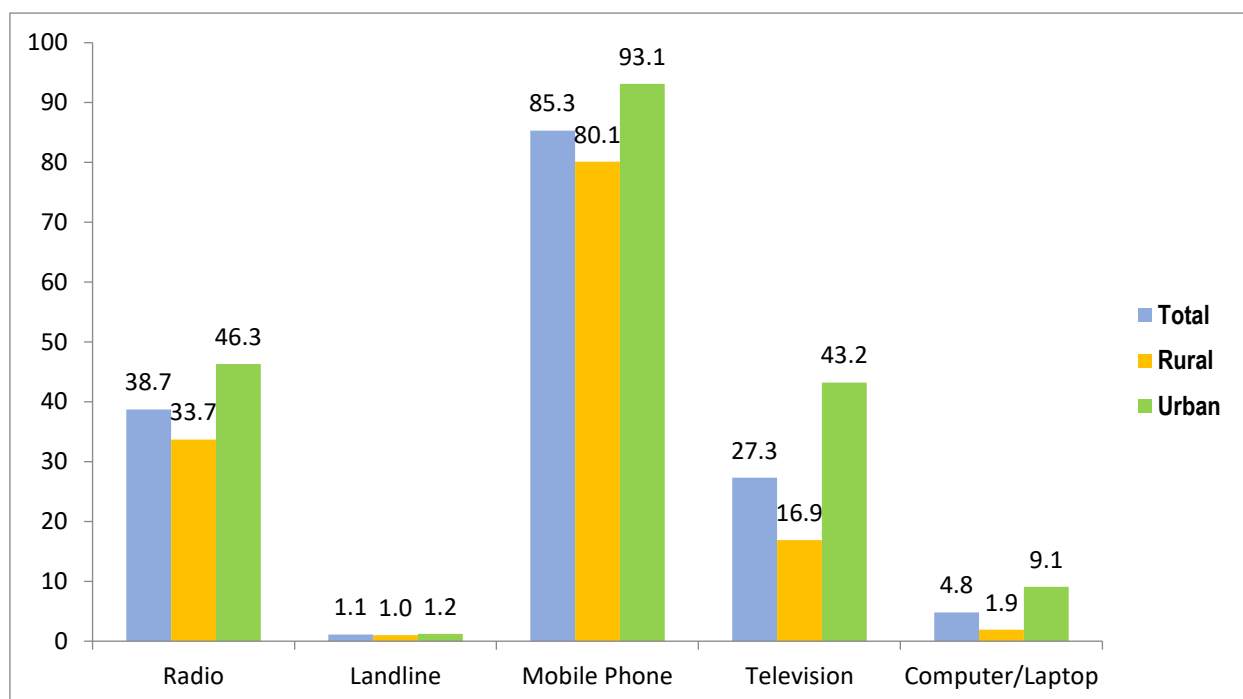
Table 5.1 presents the percentage of households owning ICT equipment by type of equipment, place of residence. The PHC 2022 enumerated 14,152,803 private households (rural 8,547,333; urban 5,605,470). The results show that most households in Tanzania own mobile phones (85.3%), followed by those owning a radio (38.7%) and television (27.3%). Computer/laptops remain rare (4.8%), while landline telephones are almost obsolete relatively low. However, result shows that mobiles phone are the most ubiquitous asset, while televisions and computers are strongly urban-skewed; radios remain common in both settings; landlines sit below two percent in either area.

Table 5.1: Urban–Rural ICT Ownership Gap (in percentage points), Tanzania, 2022 PHC

ICT Asset Owned	Percent		Urban–Rural Gap (percentage points)
	Urban	Rural	
Radio	46.3	33.7	12.6
Landline Phone	1.2	1.0	0.2
Mobile Phone	93.1	80.1	13.0
Television	43.2	16.9	26.3
Computer	9.1	1.9	7.2

Figure 5.1 presents the percentage of households owning ICT equipment by type of equipment and place of residence. Observation on the figure reveals that mobile phones are the most widely owned asset, with 93.1 percent of urban households owning them compared to 80.1 percent of households in rural areas. The percentage of households owning televisions and computers is much higher in urban households (43.2% and 9.1%) than in rural ones (16.9% and 1.9% respectively), while radio respectively remains common, although it is slightly higher (46.3%) in urban than in rural areas (33.7%). Landline phones are almost obsolete, with ownership below two percent in both areas (Figure 5.1).

Figure 5.1: Percentage of Households Owning ICT Equipment by Type of Equipment and Place of Residence; Tanzania, 2022 PHC



This urban–rural gap in ICT access hampers digital inclusion, limiting rural communities' ability to access information, education, and online services, thereby deepening socio-economic inequalities (Bankole & Mimbi, 2018). To address this divide, the Government should expand rural ICT infrastructure by improving broadband connectivity and electricity access, while also promoting affordable ICT devices through subsidies or partnerships. Additionally, digital literacy programs targeting rural populations can enhance technology adoption and usage, thereby fostering equitable digital access across the country.

Similar patterns of household ownership of ICT equipment are observed across all regions in Mainland Tanzania and Tanzania Zanzibar. However, in Mainland Tanzania, Dar es Salaam has the highest percentage of household ownership of mobile phones (96.5%), radio (52.2%), Television (51.8%), computer (13.1%) and landline telephone (1.7%), whereas Rukwa, Manyara and Kigoma regions have the smallest percentage of households owning mobile phones (69.4%), radios (29.1%) and computers (15.5%) respectively. In general, the percentages of household ownership of all ICT equipment are higher in Zanzibar regions than in Mainland regions (Table 5.2).

Table 5.2: Percentage of Households Owning ICT equipment by Type of Equipment, Place of Residence and Region; Tanzania, 2022 PHC

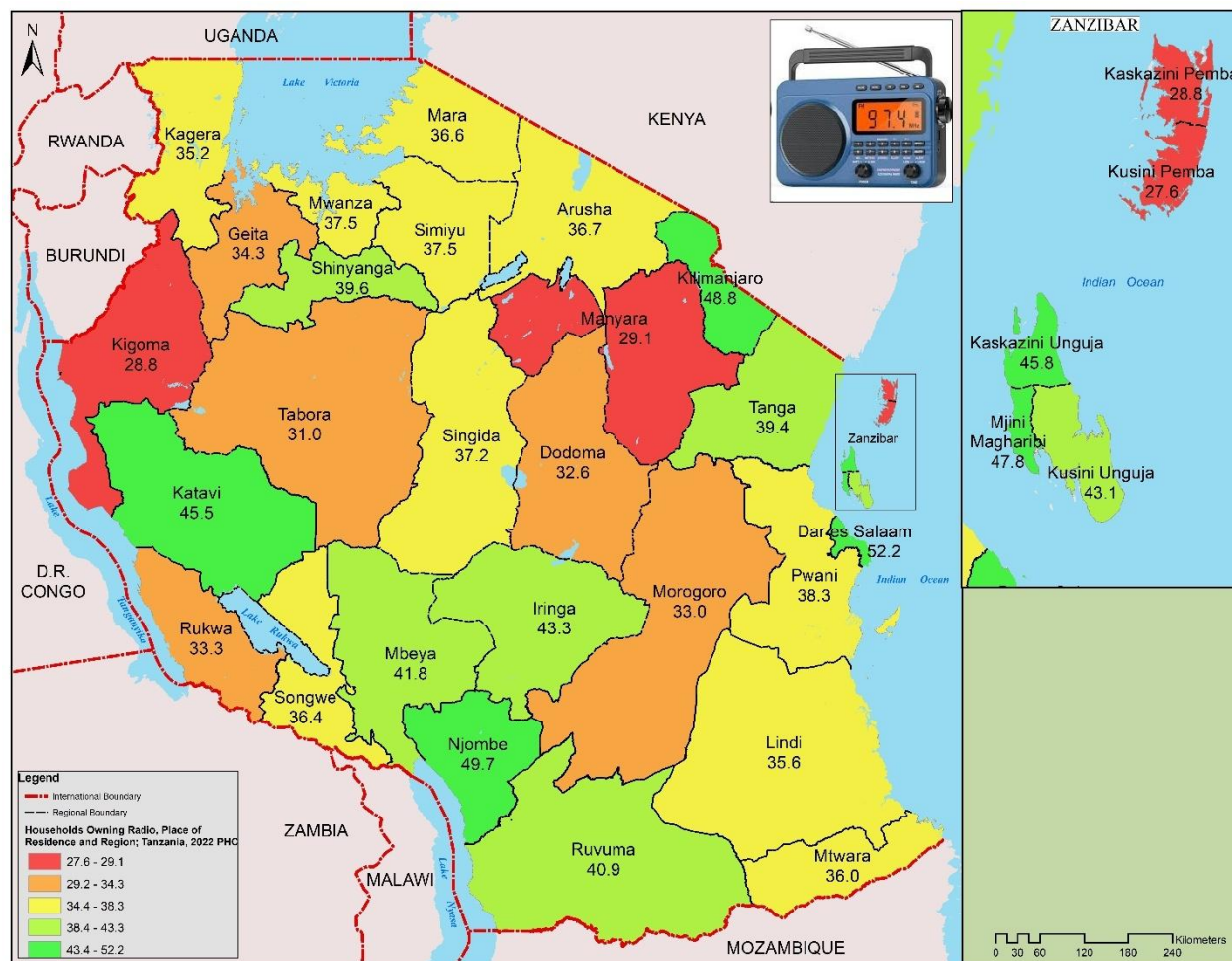
Place of Residence	Total Number of Household	Radio	Landline	Mobile Phone	Television	Computer/Laptop
Tanzania	14,152,803	38.7	1.1	85.3	27.3	4.8
Rural	8,547,333	33.7	1.0	80.1	16.9	1.9
Urban	5,605,470	46.3	1.2	93.1	43.2	9.1
Mainland Tanzania	13,776,975	38.6	1.1	85.0	26.8	4.7
Dodoma	754,631	32.6	1.1	82.1	19.7	4.7
Arusha	611,939	36.7	1.0	88.0	32.4	7.5
Kilimanjaro	494,428	48.8	0.9	91.7	37.8	6.4
Tanga	631,258	39.4	0.6	87.9	22.5	3.2
Morogoro	822,467	33.0	0.7	84.4	22.0	3.6
Pwani	537,040	38.3	0.9	90.1	27.7	3.9
Dar es Salaam	1,537,293	52.2	1.7	96.5	51.8	13.1
Lindi	344,447	35.6	1.1	80.3	20.7	2.0
Mtwara	491,811	36.0	0.9	76.2	18.5	2.1
Ruvuma	463,666	40.9	1.2	80.9	24.0	2.6
Iringa	319,117	43.3	1.5	85.5	32.9	4.8
Mbeya	624,320	41.8	1.2	86.0	29.9	4.7
Singida	392,111	37.2	1.0	82.8	22.5	2.7
Tabora	592,039	31.0	0.9	82.9	20.1	2.6
Rukwa	328,052	33.3	1.0	69.4	20.4	2.2
Kigoma	451,967	28.8	1.1	78.5	15.1	2.5
Shinyanga	418,771	39.6	1.5	86.0	26.4	3.4
Kagera	698,257	35.2	0.8	76.1	18.2	2.3
Mwanza	744,709	37.5	1.0	88.7	27.9	5.1
Mara	467,473	36.6	1.0	82.9	23.1	3.0
Manyara	398,735	29.1	1.1	82.0	17.9	2.4
Njombe	244,579	49.7	1.0	86.3	23.9	3.8
Katavi	213,825	45.5	1.6	80.3	26.3	2.5
Simiyu	311,247	37.5	1.1	84.4	17.9	2.7
Geita	555,345	34.3	0.9	83.9	20.4	2.5
Songwe	327,448	36.4	1.5	81.8	23.7	2.6
Tanzania Zanzibar	375,828	42.0	1.2	95.5	45.8	9.7
Kaskazini Unguja	53,770	45.8	1.4	92.1	25.5	3.0
Kusini Unguja	46,003	43.1	1.3	96.1	37.5	5.7
Mjini Magharibi	180,889	47.8	1.0	97.9	63.6	15.6
Kaskazini Pemba	48,178	28.8	1.4	91.9	24.6	3.8
Kusini Pemba	46,988	27.6	1.5	93.2	30.8	4.5

Furthermore, Map 5.1 shows that while radio household ownership is higher in urban settings and socio-economically better off regions like Dar es Salaam (52.2%), Njombe (49.7%), Kilimanjaro (48.8%) and Mjini Magharibi (42.0%), predominantly rural and less urbanized regions like Katavi have relatively high percentage of (45.5%) household ownership of radio, comparing with regions like Dar es Salaam (52.2%) and Kilimanjaro (48.8%) suggesting that the relationship between urbanization and radio ownership is not linear.

Historically, radio has been a cornerstone of public communication, offering an affordable, accessible, and far-reaching channel. In health, it has played a transformative role by

delivering life-saving information, shaping community behaviours, and ensuring that even the most remote households can be reached with critical messages. Despite the rapid growth of mobile phones and internet access, radio remains one of the most reliable and trusted communication tools in many low- and middle-income countries. Its resilience during electricity shortages, relatively low cost, and ability to transmit in local languages ensure its continued relevance as a medium for health communication (Map 5.1)

Map 5.1: Percentage of Households Owning Radio by Region; Tanzania, 2022 PHC



5.3 Household Ownership of Radio Across Zones

Tanzania is divided into eight zones, each consisting two to six regions depending on the geographical location of the regions. These zones are;

- i. Lake Zone is made up of Mwanza, Mara, Kagera, Shinyanga, Simiyu and Geita regions;
- ii. Western Zone is made up of Kigoma and Tabora regions;
- iii. The South West Highlands Zone is made up of Katavi, Rukwa Songwe and Mbeya regions;
- iv. The Southern Highlands Zone is made up of Iringa, Njombe and Ruvuma regions;
- v. The Southern Zone is made up of Lindi and Mtwara regions;
- vi. The Eastern Zone is made up of Dar es Salaam, Pwani and Morogoro regions;
- vii. The Central Zone is made up of Dodoma, Singida and Manyara regions;
- viii. Northern Zone made up of Arusha, Kilimanjaro and Tanga regions; and
- ix. Zanzibar Zone is made up of Kaskazini Unguja, Kusini Unguja, Mjini Magharibi, Kaskazini Pemba and Kusini Pemba regions.

Across zones, radio remains an important medium of communication and entertainment, especially in rural households where TV penetration may be lower. Census results presented in Table 5.3 indicate that radio ownership is relatively high in the country, with the Eastern Zone having the highest percentage (44.2%) of households owning radios, followed by the Southern Highlands Zone (43.8%) and Zanzibar Zone (42.0%), whereas the Western Zone has the lowest percentage (30.0).

The high radio ownership penetration in the Eastern and Southern Highlands Zones may be attributed to urbanisation, education and economic activities which drive higher radio ownership. In addition, these two Zones have two regions (Dar es Salaam and Njombe) with the highest radio penetration rates (52.2% and 49.7% respectively) in the country. The low level of household ownership of radios recorded in the Western Zone may be linked to limited alternatives, making radio an important tool for communication and public information delivery. (Table 5.3).

Table 5.3: Percentage of Households Owning Radios by Zone; Tanzania, 2022 PHC

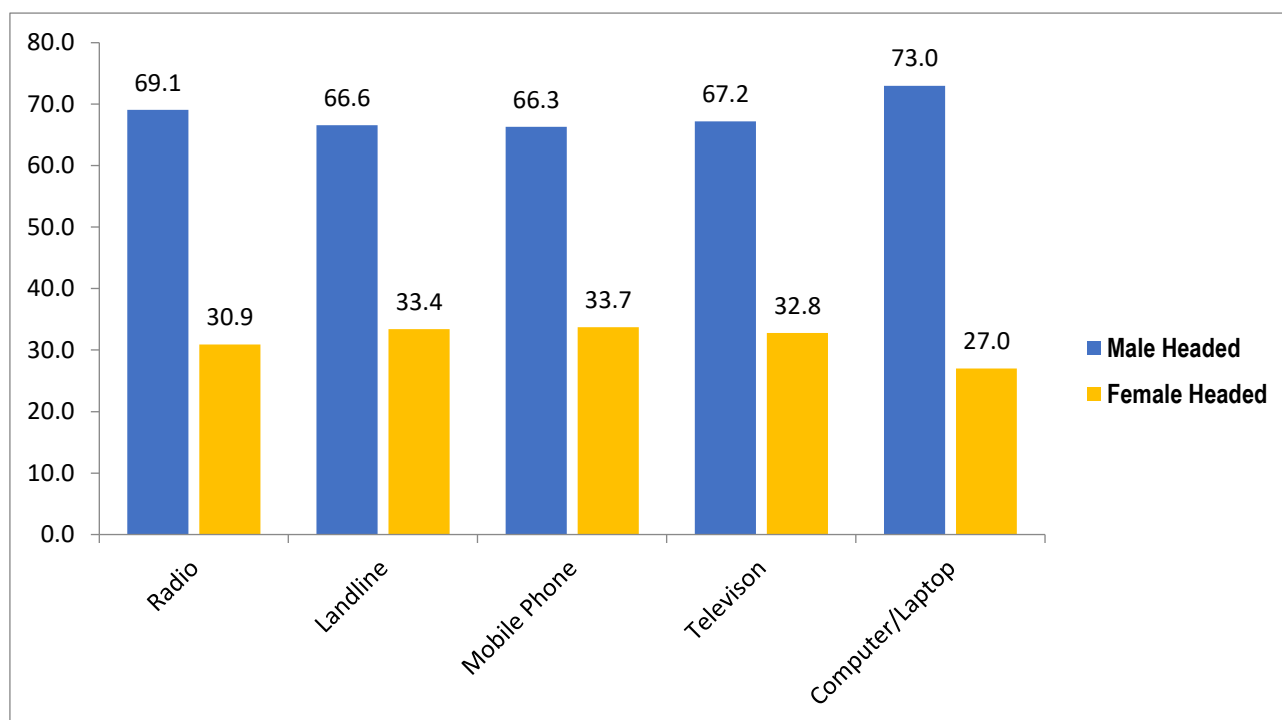
Zones	Total Number of Households	Number of Households Owning Radios	Percent
Lake	3,195,802	1,168,380	36.6
Western	1,044,006	313,674	30.0
South-West Highlands	1,493,645	586,973	39.3
Southern Highlands	1,027,362	449,673	43.8
Southern Zone	836,258	99,808	35.9
Eastern Zone	2,896,800	1,279,392	44.2
Central Zone	1,545,477	507,972	32.9
Northern Zone	1,737,625	715,001	41.1
Zanzibar Zone	375,828	157,708	42.0

5.4 Household Ownership of ICT Equipment by Type of Headship

Ownership of ICT equipment varies significantly by type of household headship, reflecting differences in economic capacity, priorities, and access to technology. Male-headed households generally exhibit higher ownership rates of devices such as televisions, mobile phones, and computers due to their relatively greater financial resources and decision-making power. Female-headed households, on the other hand, often exhibit lower ownership levels, particularly for expensive equipment like computers and internet connections, which can be attributed to income disparities and other socio-economic challenges.

Analysis of ownership of ICT equipment by type of headship presented in Figure 5.2, shows notable differences between male-headed and female-headed households in both rural and urban areas. Nationally, male-headed households have higher ownership of all ICT assets, with the largest gap observed in computer/laptop ownership (73.0% for male-headed households against 27.0% for female-headed households) (Figure 5.2).

Figure 5.2: Percentage of Households Owning ICT Equipment by Type of Equipment and Headship; Tanzania, 2022 PHC



The results shown in Figure 5.3 and Table 5.4 indicate that a similar pattern is observed for mobile phones (66.3% for male-headed compared with 33.7% for female-headed) and televisions (67.2% versus 32.8%). Rural areas show slightly higher ownership of radios in male-headed (71.0%) and in female-headed (29.0%) households. In contrast, urban areas demonstrate a more balanced distribution, particularly for landline phones (67.2% for male-headed versus 32.8% for female-headed). Urban households generally have better access to modern ICT equipment like computers (72.5% for male-headed and 27.5% for female-headed households), indicating the influence of urban infrastructure and economic opportunities. Overall, male-headed households dominate ICT ownership, with disparities more pronounced in rural areas.

Figure 5.3: Percentage of Households Owning ICT Equipment by Type of Equipment, Type of Headship and Place of Residence; Tanzania, 2022 PHC

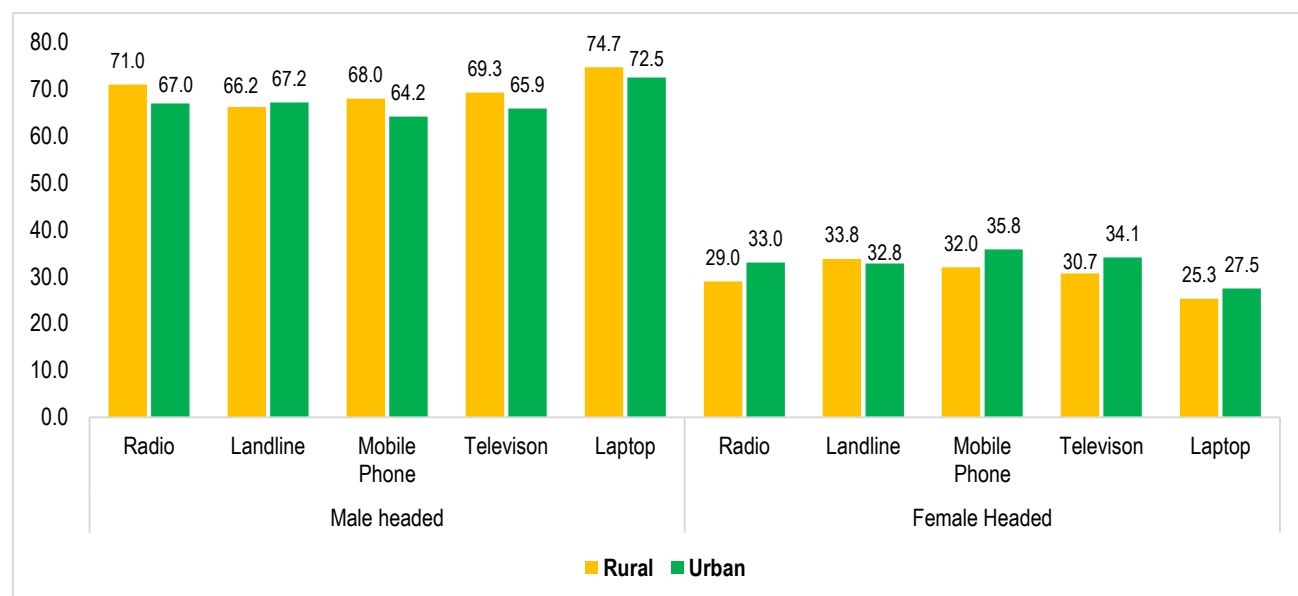


Table 5.4: Percentage of Households Owning ICT Equipment by Type of Headship, Place of Residence and Region; Tanzania, 2022 PHC

Region	Number of Households					Male Headed					Female Headed				
Total	Radio	Landline	Mobile Phone	Television	Computer/Laptop	Radio	Landline	Mobile Phone	Television	Computer/Laptop	Radio	Landline	Mobile Phone	Television	Computer/Laptop
	5478581	153986	12067877	3868700	676907	69.1	66.6	66.3	67.2	73	30.9	33.4	33.7	32.8	27
Rural	2,882,523	88,610	6,846,523	1,447,395	166,468	71	66.2	68	69.3	74.7	29	33.8	32	30.7	25.3
Urban	2,596,058	65,376	5,221,354	2,421,305	510,439	67	67.2	64.2	65.9	72.5	33	32.8	35.8	34.1	27.5
Mainland Tanzania	5,320,873	149,518	11,709,013	3,696,477	640,597	69	66.5	66.2	67	72.9	31	33.5	33.8	33	27.1
Dodoma	246,189	8,016	619,629	148,725	35,645	71.7	68.1	67.9	69.6	72.1	28.3	31.9	32.1	30.4	27.9
Arusha	224,791	6,333	538,333	198,102	46,120	62.7	57.6	61.8	63.1	71.2	37.3	42.4	38.2	36.9	28.8
Kilimanjaro	241,185	4,224	453,543	187,097	31,468	65.2	68.2	62.8	64.4	70.9	34.8	31.8	37.2	35.6	29.1
Tanga	249,025	3,592	554,687	141,914	20,468	69.6	67	66.5	66.7	73.7	30.4	33	33.5	33.3	26.3
Morogoro	271,611	5,427	694,279	180,636	29,449	73	68.6	69.1	69.8	73.9	27	31.4	30.9	30.2	26.1
Pwani	205,525	4,974	483,991	148,552	20,886	70.3	72.4	66.9	68.4	74.3	29.7	27.6	33.1	31.6	25.7
Dar es Salaam	802,256	25,449	1,483,982	797,034	200,860	68.7	69.3	66.4	67.4	72.6	31.3	30.7	33.6	32.6	27.4
Lindi	122,729	3,850	276,664	71,183	6,917	71.5	66.6	67.6	68.7	75.9	28.5	33.4	32.4	31.3	24.1
Mtwara	177,079	4,189	374,739	91,122	10,209	72.8	66	66.5	69.3	75.3	27.2	34	33.5	30.7	24.7
Ruvuma	189,845	5,692	375,085	111,477	12,132	74.7	70.5	71.4	70.9	76.6	25.3	29.5	28.6	29.1	23.4
Iringa	138,256	4,735	272,855	104,961	15,357	66.2	62.4	63.1	63.9	72	33.8	37.6	36.9	36.1	28
Mbeya	261,275	7,280	537,071	186,564	29,164	69.2	64.9	65	66.6	74.3	30.8	35.1	35	33.4	25.7
Singida	145,764	3,933	324,795	88,277	10,567	69.6	65.2	67	67.3	72.8	30.4	34.8	33	32.7	27.2
Tabora	183,569	5,599	490,935	119,251	15,443	69.5	68	68.1	68.2	74.5	30.5	32	31.9	31.8	25.5
Rukwa	109,287	3,378	227,517	66,814	7,217	70.6	65.6	70	68	75.8	29.4	34.4	30	32	24.2
Kigoma	130,105	5,163	354,790	68,303	11,288	70.9	65.3	67.8	67	75.2	29.1	34.7	32.2	33	24.8
Shinyanga	165,650	6,166	360,125	110,751	14,133	67.2	67	66	65.9	71.4	32.8	33	34	34.1	28.6
Kagera	245,601	5,662	531,368	126,955	16,153	73.2	71.2	68.3	69.4	74.2	26.8	28.8	31.7	30.6	25.8
Mwanza	279,064	7,391	660,907	208,100	38,033	65.7	65	62.9	63.8	70.3	34.3	35	37.1	36.2	29.7
Mara	170,865	4,486	387,373	108,155	14,138	64.2	59	60.1	63.4	72.4	35.8	41	39.9	36.6	27.6
Manyara	116,019	4,560	326,886	71,372	9,722	69	67.8	67.8	68.8	75.7	31	32.2	32.2	31.2	24.3
Njombe	121,572	2,546	211,099	58,408	9,313	66.3	65.3	63	66.9	74.3	33.7	34.7	37	33.1	25.7
Katavi	97,193	3,527	171,654	56,283	5,283	71.3	67.1	72.3	69.4	77.2	28.7	32.9	27.7	30.6	22.8
Simiyu	116,865	3,456	262,771	55,787	8,253	61.5	56.4	60.3	61.5	70.3	38.5	43.6	39.7	38.5	29.7
Geita	190,335	4,995	466,198	113,182	13,800	69.6	65.5	67.2	67.9	74.6	30.4	34.5	32.8	32.1	25.4
Songwe	119,218	4,895	267,737	77,472	8,579	70.6	63.9	67.9	67.9	75.7	29.4	36.1	32.1	32.1	24.3
Tanzania Zanzibar	157,708	4,468	358,864	172,223	36,310	71.9	71.3	70.3	71.7	75	28.1	28.7	29.7	28.3	25
Kaskazini Unguja	24,600	774	49,499	13,696	1,593	73.7	71.7	72.9	74	78.7	26.3	28.3	27.1	26	21.3
Kusini Unguja	19,842	604	44,212	17,235	2,635	72.7	76.3	71.5	75.6	76.8	27.3	23.7	28.5	24.4	23.2
Mjini Magharibi	86,421	1,732	177,095	114,972	28,173	71.6	70.3	70.5	71.2	74.6	28.4	29.7	29.5	28.8	25.4
Kaskazini Pemba	13,896	666	44,274	11,831	1,807	70.7	73.9	68.2	70.7	75.9	29.3	26.1	31.8	29.3	24.1
Kusini Pemba	12,949	692	43,784	14,489	2,102	70.2	66.6	67.5	69.4	74.2	29.8	33.4	32.5	30.6	25.8

5.5 Trend in Household ICT Equipment Ownership by Type

Trend data in ICT ownership and use helps in track digital transformation, identifying inequalities based on sex, age, education, occupation, disability, or rural/urban location. It also helps in evaluating progress; evaluating policy and investment impact; tracking inequalities; guide future policy and investments; and supporting inclusive development (ITU, 2024).

Given the importance of trends in ICT data, it is essential to compare data from different censuses to observe changes over time, highlight persistent digital gaps and detect emerging issues. Although the data collected in the three most recent censuses in Tanzania are not directly comparable, there is an indication that ownership of ICT equipment is increasing over time, except for radios and landline telephones.

Table 5.5 shows that in 2012, household radio ownership/use was relatively high (61.6%), both in rural and urban areas with urban areas exhibiting higher ownership/use percentage (69.8%) than rural areas (44.5%). However, in 2022 the radio ownership percentages dropped significantly to an overall 38.7 percent, with the urban falling to 46.3 percent and that of rural to 33.7 percent. This indicates that household ownership/use of radio is declining as people shift to other media/ICT.

During the same period, overall household ownership/use of television rose from 15.6 percent to 27.3 percent with the urban area increasing from 39.0 percent to 43.2 percent and rural areas from 4.0 percent to 16.9 percent. This shows that TV access is growing, it remains predominantly concentrated in urban areas

On the other hand, 63.9 percent of households owned/used mobile phones in 2012 (54.2% in rural areas and 83.4% in urban areas). In 2022, these percentages jumped to an overall percentage of 85.3 with 93.1 percent in urban areas and 80.1 percent in rural areas. This suggests that mobile phones dominate ICT access across both rural and urban areas, narrowing the rural-urban divide (Figures 5.4a, 5.4b and 5.4c and Table 5.5).

Computer ownership/use in Tanzania is very low. In 2012 it accounted for an overall household percentage of 2.7; which 0.5 percent in rural areas and 7.2 in urban areas. In 2022, these percentages increased to an overall percentage of 4.8; which 9.1 percent in

urban areas and 1.9 percent in rural areas. This indicates that in Tanzania, computers remain limited and predominately concentrated in urban areas.

Household access to internet facilities is also low with an overall percentage of 4.7 in 2012; (7.5% in urban areas and 3.4% in rural areas). In 2022, these percentages declined to an overall percentage of 0.5 (1.2% in urban areas and 0.1% in rural areas), likely because households no longer report fixed “internet facilities”, as access is mainly via mobile phones rather than wired internet.

Household landline telephone access has been low since 2012. The overall access in 2012 was 1.1 percent; 0.6 percent in rural and 2.1 percent in urban. In 2022 these percentages has decreased to less than one percent, indicating that landline telephones are nearly obsolete, replaced by mobile phones (Table 5.5).

Table 5.5: Percentage of Households Owning ICT Equipment by Place of Residence and Type of Equipment; Tanzania, 2002, 2012 and 2022 PHCs

Type of Equipment	2002			2012			2022		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Radio	51.2	44.5	69.8	61.6	58.1	68.6	38.7	33.7	46.3
Television	NA	NA	NA	15.6	4.0	39.0	27.3	16.9	43.2
Landline Telephone	3.8	0.6	12.6	1.1	0.6	2.1	1.1	1.0	1.2
Mobile phone	NA	NA	NA	63.9	54.2	83.4	85.3	80.1	93.1
Computer	NA	NA	NA	2.7	0.5	7.2	4.8	1.9	9.1
Internet Facility	NA	NA	NA	4.7	3.4	7.5	0.6	0.1	0.5

Note: Internet facility is in relation to internet connectivity.

Figure 5.4a: Trends in Households Ownership of ICT Equipment; Tanzania; 2002, 20012 and 2022 PHCs

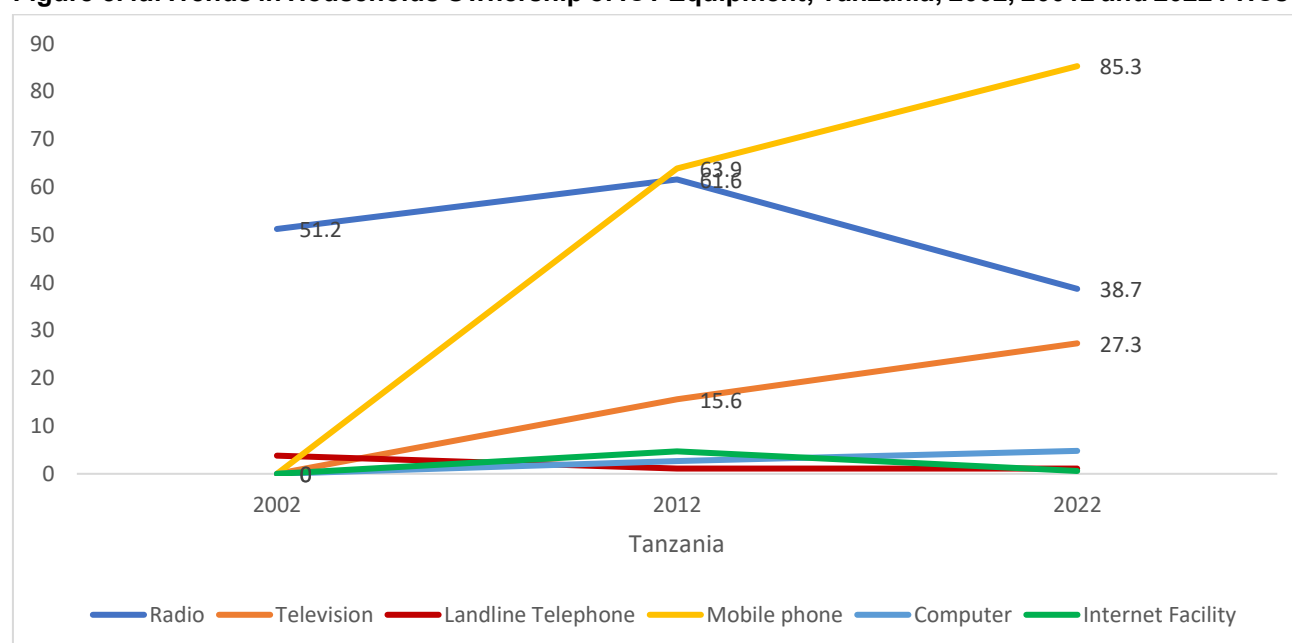


Figure 5.4b: Trends in Households Ownership of ICT Equipment; Tanzania Rural, 2002, 2012 and 2022 PHCs

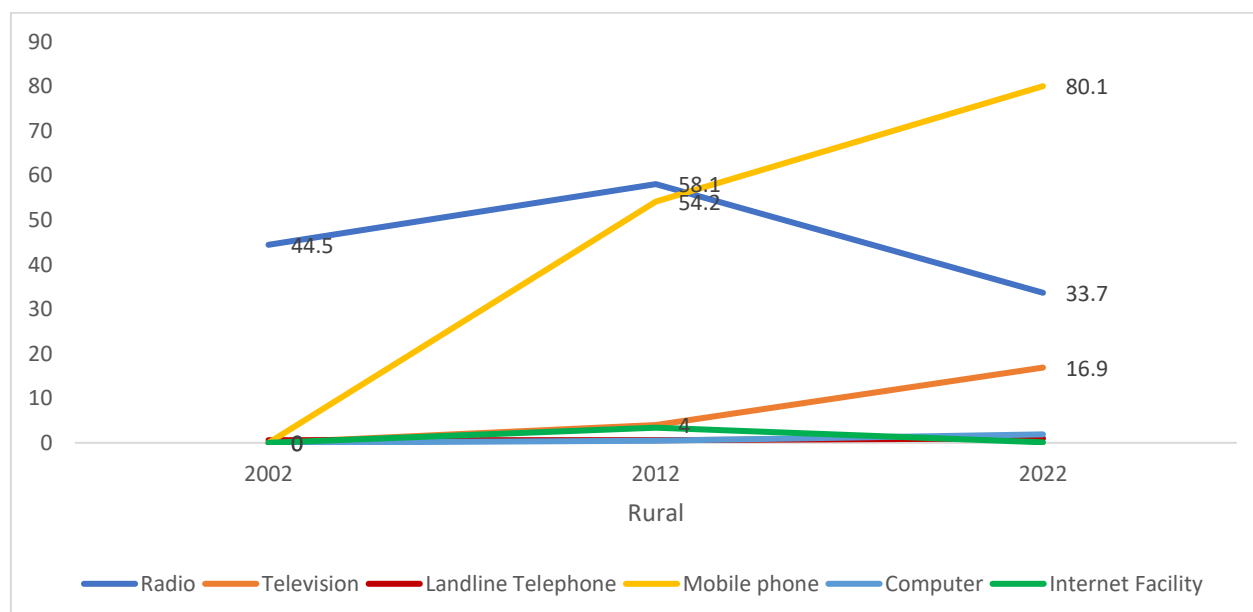
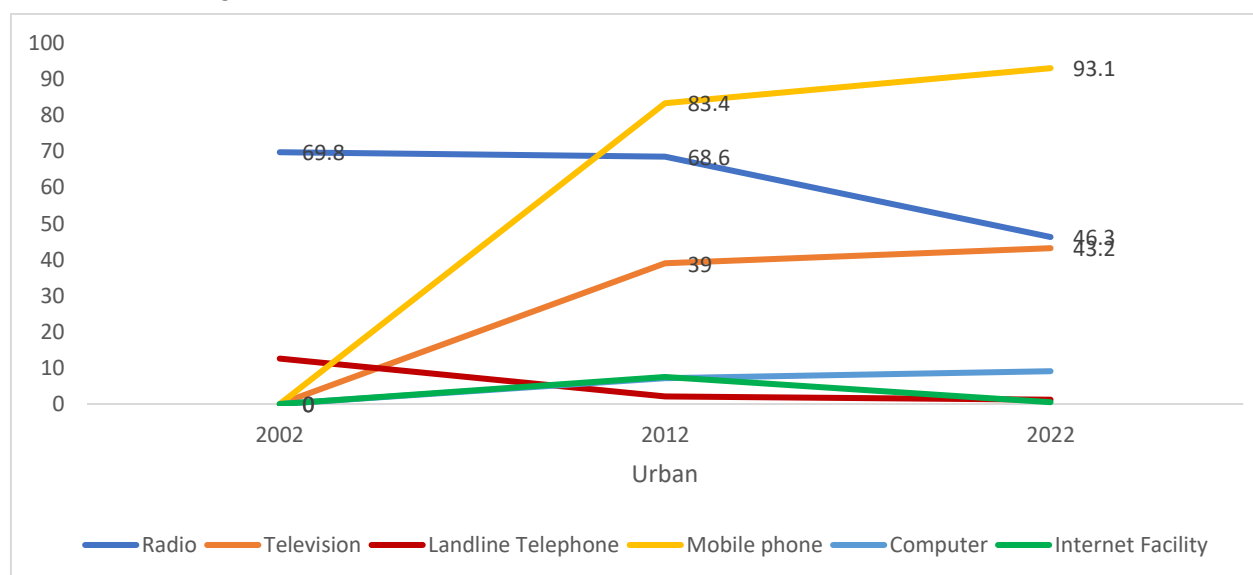


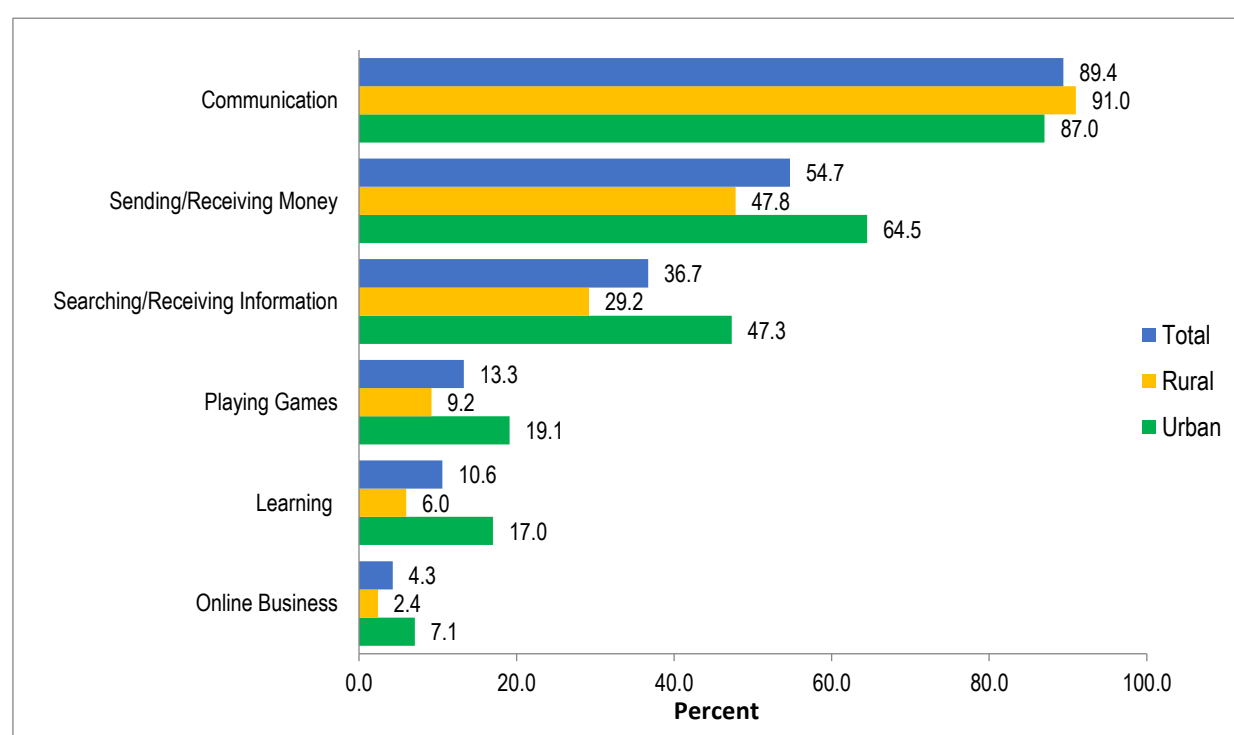
Figure 5.4c: Trends in Households Ownership of ICT Equipment; Tanzania Urban, 2002, 2012 and 2022 PHCs



5.6 Individual Ownership of ICT Equipment by Type of Use

Table 5.5 indicates that most individuals aged four years and above use ICT equipment for communication (89.4%), receiving/sending money (54.7%) and searching and receiving information (36.7%). A similar pattern is observed in rural and urban areas with urban individuals exhibiting higher percentages (ranging from 7.1% to 87.0%) of individuals aged four years and above using ICT equipment for online business, learning, playing games/entertainment, searching/receiving information, sending and receiving money as well as communication. This is likely due to urban residents having better ICT infrastructure, higher internet availability and digital services. The lower levels of use of ICT equipment by type of use (ranging from 2.4% to 91.0%) observed across all types of use in rural areas may be attributed to barriers faced by individuals in rural areas, such as lack of electricity, limited access to ICT equipment, and lower awareness of digital opportunities (Figure 5.5 and Table 5.5).

Figure 5.5 Percentage of Individuals Aged Four Years and Above Using ICT Equipment by Type of Use and Residence; Tanzania, 2022



In most regions, the majority of individuals aged four years and above use ICT equipment for communication, followed by sending and receiving money and searching and receiving information. A relatively small percentage of individuals use ICT equipment for online businesses.

In Mainland Tanzania, Lindi and Mtwara regions have the highest percentage of individuals using ICT equipment for communication (93.0% each), whereas Dar es Salaam Region has the highest percentage of those using ICT equipment for searching and receiving information (55.5%), online business (10.0%), learning (21.8%), playing games/entertainment (22.9%) as well as sending and receiving money (69.6%). On the other hand, Arusha Region has the smallest percentage of individuals aged four years and above using ICT equipment for communication (87.0%). Moreover, Katavi Region has the smallest percentages of individuals using ITC equipment for searching and receiving information (20.1%), learning (4.8%), playing games/entertainment (7.0%) as well as sending and receiving money (37.3%) and Simiyu Region has the smallest percentage of those using ICT equipment for online business (1.9%).

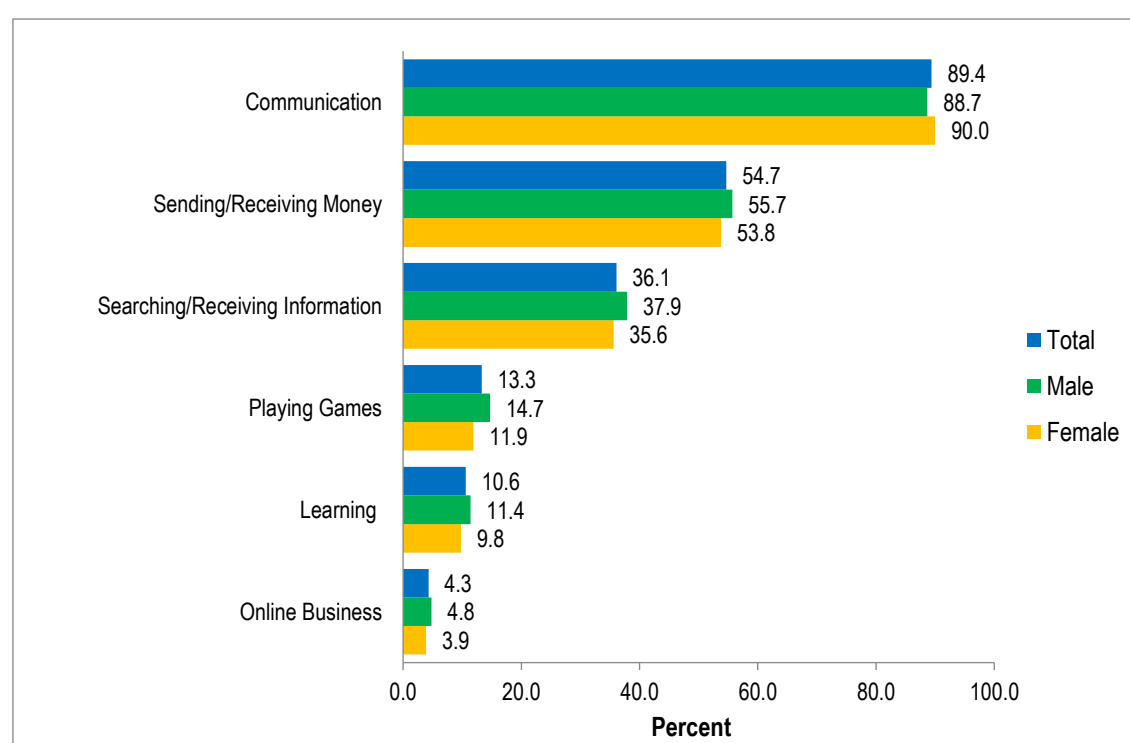
In Tanzania Zanzibar, Kaskazini Pemba Region has the highest percentage of individuals using ICT equipment for communication (91.0% each), whereas Mjini Magharibi Region has the highest percentage of those using ICT equipment for searching and receiving information (52.8%), online business (6.5%), learning (20.7%), playing games/entertainment (28.0%) as well as sending and receiving money (55.0%). On the other hand, Mjini Magharibi Region has the smallest percentage of individuals aged four years and above using ICT equipment for communication (84.8%). In contrast, Kaskazini Pemba Region has the smallest percentages of individuals using ITC equipment for searching and receiving information (31.1%) and online business (2.3%). Kaskazini Unguja Region has the smallest percentages of those using ICT equipment for learning (8.6%), playing games/entertainment (12.5%) as well as sending and receiving money (32.4%) (Table 5.6).

Table 5.6: Percentage of Individuals Aged Four Years and Above Using ICT Equipment by Type of Use, Sex, Place of Residence and Region; Tanzania, 2022 PHC

Region	Population Using ICT Equipment			Communication			Search/Receive Information			Online Business			Learning			Playing Games/ Entertainment			Sending and Receiving Money		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	33,836,833	16,718,777	17,118,056	89.4	88.7	90.0	36.7	37.0	20.1	4.3	4.8	3.9	10.6	11.4	9.8	13.3	14.7	11.9	54.7	55.7	53.8
Rural	19,819,646	9,960,452	9,859,194	91.0	90.8	91.2	29.2	31.2	15.1	2.4	2.8	2.1	6.0	6.8	5.3	9.2	10.8	7.6	47.8	49.7	45.8
Urban	14,017,187	6,758,325	7,258,862	87.0	85.5	88.4	47.3	44.8	27.7	7.1	7.8	6.3	17.0	18.2	15.9	19.1	20.6	17.8	64.5	64.4	64.6
Mainland Tanzania	32,700,247	16,166,928	16,533,319	89.4	88.8	90.1	36.4	36.7	19.9	4.3	4.8	3.9	10.4	11.2	9.6	13.0	14.4	11.6	54.9	55.9	54.0
Dodoma	1,745,110	876,110	869,000	90.1	89.6	90.7	31.6	33.2	16.8	3.7	4.1	3.3	10.5	11.1	9.8	14.6	16.1	13.1	53.7	55.0	52.3
Arusha	1,414,194	668,841	745,353	87.0	86.0	88.0	46.1	42.5	27.2	6.0	6.8	5.3	15.4	16.5	14.3	16.4	17.9	15.1	56.8	57.7	56.0
Kilimanjaro	1,227,327	592,620	634,707	89.5	88.6	90.4	45.7	43.3	26.0	4.6	5.1	4.2	12.7	13.2	12.2	13.0	14.2	11.8	63.1	62.9	63.4
Tanga	1,528,315	742,721	785,594	92.1	91.4	92.7	33.0	32.7	17.6	2.8	3.2	2.3	8.1	9.0	7.3	12.7	14.3	11.1	61.3	62.3	60.4
Morogoro	1,835,443	931,315	904,128	90.3	89.9	90.7	40.3	42.4	21.4	3.9	4.3	3.5	10.0	10.6	9.4	12.4	13.6	11.2	63.6	64.5	62.6
Pwani	1,234,607	609,348	625,259	90.6	90.0	91.3	36.7	36.8	19.9	4.6	5.0	4.2	10.9	11.6	10.3	15.7	16.9	14.7	68.7	69.4	68.1
Dar es Salaam	4,061,847	1,989,342	2,072,505	84.8	83.0	86.6	55.5	53.4	33.3	10.0	10.9	9.1	21.8	22.7	20.9	22.9	23.9	22.0	69.6	68.7	70.5
Lindi	711,178	355,778	355,400	93.0	92.6	93.4	33.2	35.2	16.8	2.7	3.1	2.2	6.4	7.4	5.4	13.1	15.4	10.8	60.7	63.0	58.4
Mtwara	945,329	466,557	478,772	93.0	92.5	93.5	26.8	28.3	13.4	2.5	2.9	2.0	6.5	7.6	5.4	10.5	12.9	8.2	57.4	60.1	54.8
Ruvuma	1,019,368	514,976	504,392	91.2	90.8	91.5	30.1	32.1	15.6	2.8	3.1	2.5	6.9	7.7	6.1	9.9	11.4	8.4	53.3	54.6	51.9
Iringa	712,708	345,097	367,611	89.4	88.5	90.3	43.8	42.4	24.5	5.0	5.6	4.4	14.0	15.3	12.7	15.0	16.8	13.2	61.6	62.4	60.8
Mbeya	1,369,484	661,074	708,410	89.1	88.1	90.0	40.8	39.2	23.1	5.0	5.6	4.4	11.9	13.2	10.6	14.1	16.0	12.3	60.2	60.7	59.8
Singida	971,121	496,793	474,328	90.5	90.3	90.7	34.5	37.4	18.0	3.0	3.4	2.6	7.3	7.9	6.6	8.7	9.9	7.4	48.3	49.7	46.9
Tabora	1,549,886	786,701	763,185	90.9	90.7	91.2	26.6	28.9	13.6	2.6	2.9	2.3	5.8	6.5	5.1	10.3	11.9	8.7	41.1	43.1	39.0
Rukwa	659,393	338,863	320,530	90.6	90.4	90.8	27.7	31.6	13.7	2.9	3.3	2.4	6.4	7.4	5.2	8.8	10.8	6.7	42.8	45.3	40.1
Kigoma	1,053,444	515,734	537,710	89.8	89.4	90.2	27.4	28.3	14.4	2.8	3.3	2.3	6.4	7.7	5.1	8.7	10.5	7.1	43.1	44.9	41.3
Shinyanga	1,110,309	561,956	548,353	90.1	89.8	90.3	27.1	29.1	14.2	3.1	3.5	2.8	7.4	8.1	6.8	12.8	14.0	11.5	44.1	45.8	42.3
Kagera	1,448,436	734,377	714,059	90.1	89.8	90.3	32.1	34.5	16.7	2.9	3.3	2.5	7.3	8.2	6.5	9.4	10.8	7.9	44.9	46.1	43.8
Mwanza	1,942,107	947,671	994,436	88.8	88.1	89.4	36.8	36.2	20.6	4.8	5.3	4.2	10.0	11.1	9.0	11.5	12.9	10.2	54.6	55.2	54.1
Mara	1,146,378	543,019	603,359	89.2	88.4	89.8	29.9	28.5	16.7	2.7	3.2	2.3	7.5	9.0	6.1	10.1	11.9	8.5	49.5	50.5	48.6
Manyara	952,736	488,341	464,395	89.2	88.9	89.4	29.5	32.2	15.5	2.7	3.0	2.5	7.4	7.9	7.0	9.3	10.1	8.4	41.7	42.9	40.4
Njombe	524,951	247,888	277,063	90.5	89.7	91.3	39.9	37.0	22.5	4.4	5.0	3.9	10.7	11.9	9.6	12.3	14.1	10.7	58.5	59.7	57.4
Katavi	516,937	270,271	246,666	90.4	90.3	90.5	20.1	23.8	9.6	2.5	2.9	2.1	4.8	5.5	4.0	7.0	8.3	5.6	37.8	40.5	34.8
Simiyu	956,348	457,543	498,805	90.2	89.9	90.5	23.7	23.6	12.6	1.9	2.2	1.6	5.1	6.1	4.2	7.2	8.7	5.9	37.3	39.7	35.1
Geita	1,365,764	685,846	679,918	89.3	89.2	89.5	28.4	30.2	14.9	2.6	3.0	2.3	6.0	6.9	5.1	7.9	9.2	6.7	48.7	50.4	47.0
Songwe	697,527	338,146	359,381	90.2	89.7	90.6	37.4	37.0	20.4	3.4	4.0	2.8	7.5	8.7	6.4	11.4	13.3	9.5	51.6	53.7	49.7
Tanzania Zanzibar	1,136,586	551,849	584,737	87.2	86.1	88.1	46.3	44.8	26.7	4.9	5.5	4.3	16.0	16.2	15.8	23.2	25.1	21.4	47.9	49.8	46.2
Kaskazini Unguja	139,919	70,196	69,723	88.2	88.2	88.2	40.9	42.9	22.2	2.8	3.3	2.3	8.6	9.2	8.0	12.5	14.3	10.8	32.4	34.7	30.1
Kusini Unguja	118,188	59,477	58,711	89.0	88.3	89.7	46.1	48.0	25.0	4.5	5.0	3.9	14.2	14.3	14.2	24.9	26.7	23.0	47.9	50.4	45.4
Mjini Magharibi	604,766	291,401	313,365	84.8	83.3	86.2	52.8	49.6	32.0	6.5	7.2	5.9	20.7	20.6	20.9	28.0	29.5	26.6	55.0	56.2	53.9
Kaskazini Pemba	136,314	65,453	70,861	91.0	90.2	91.7	31.3	31.6	16.4	2.3	2.9	1.7	9.6	10.8	8.4	16.3	19.6	13.3	39.6	42.7	36.7
Kusini Pemba	137,399	65,322	72,077	90.9	90.2	91.5	37.7	36.0	20.7	2.8	3.5	2.2	10.7	11.6	9.9	18.3	21.5	15.4	40.9	43.8	38.4

The Census results further indicate gender differences in ICT use patterns with males tending to show higher participation in all activities except communication. This may reflect gendered access to resources, occupational differences, and disparities in digital literacy levels. However, females often exhibit a relatively higher participation in ICT uses linked to social communication, suggesting that ICT serves as a tool for social networking and skill building among women. These patterns highlight persistent digital gender divides, influenced by socio-economic roles, cultural norms, and access to devices and internet connectivity (Figure 5.6).

Figure 5.6: Percentage of Individuals Aged Four Years and Above Using ICT Equipment by Type of Use of ICT Equipment and Sex; Tanzania, 2022 PHC



ICT equipment use is widespread across all age groups, with the highest usage seen among adults aged 20–74, primarily for communication and sending or receiving money. Younger users (especially those aged 15–29) also utilise ICT for learning, entertainment, and online business, while the elderly exhibit lower engagement in most functions, except for communication and sending/receiving money. Overall, communication and mobile financial services are the most common uses, reflecting their essential role in daily life. Meanwhile, activities such as online business and learning are concentrated among the youth and working-age adults (Table 5.7).

**Table 5. 7: Percentage of Individuals Aged Four and Above Using ICT Equipment by Type of Use of ICT Equipment, Sex and Age Group; Tanzania, 2022
PHC**

Age Group	Number of Individuals			Communication			Search/Receive Information			Online Business			Learning			Playing Games/Entertainment			Sending and Receiving Money		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	33,836,833	16,718,777	7,118,056	89.4	88.7	90.0	36.7	37.9	35.6	4.3	4.8	3.9	10.6	11.4	9.8	13.3	14.7	11.9	54.7	55.7	53.8
4	121,538	60,314	61,224	62.6	62.0	63.2	7.6	7.6	7.6	1.0	1.0	1.1	5.6	5.6	5.5	16.8	17.3	16.2	7.0	7.0	6.9
5-9	783,474	386,413	397,061	68.1	67.5	68.7	9.7	9.8	9.7	1.0	1.0	1.0	6.3	6.2	6.4	16.5	17.0	15.9	8.5	8.6	8.4
10-14	1,150,769	577,761	573,008	77.9	77.3	78.4	14.9	14.9	14.9	1.2	1.2	1.1	7.4	7.3	7.5	15.3	16.0	14.6	14.5	14.7	14.3
15 - 19	4,232,511	2,107,136	2,125,375	89.8	89.8	89.8	33.3	33.3	33.4	2.8	2.9	2.7	11.9	12.1	11.7	16.7	18.2	15.3	44.9	44.6	45.3
20 - 24	5,055,469	2,405,264	2,650,205	89.7	89	90.3	41.2	41.7	40.8	5.2	5.6	4.8	15.1	15.8	14.3	19.4	21.4	17.6	58.2	58.3	58.1
25 - 29	4,547,407	2,225,090	2,322,317	89.4	88.3	90.4	42.4	43.3	41.6	6.4	7.1	5.8	14.0	15.0	13.0	17.8	19.6	16.0	60.8	61.6	60.1
30 - 34	3,846,150	1,922,371	1,923,779	89.4	88.3	90.5	41.8	43.1	40.5	6.1	6.9	5.4	12.8	14.0	11.5	15.2	16.9	13.4	61.1	62.2	59.9
35 - 39	3,103,573	1,539,093	1,564,480	90.1	89.1	91.1	40.1	41.7	38.5	5.3	6.1	4.6	10.6	12.0	9.3	12.2	13.9	10.5	60.4	61.7	59.0
40 - 44	2,619,034	1,310,473	1,308,561	90.9	90.2	91.7	39.0	40.6	37.3	4.7	5.3	4.0	8.8	9.9	7.8	9.8	11.2	8.4	60.7	62.2	59.3
45 - 49	2,210,813	1,117,279	1,093,534	91.4	90.8	92.1	37.8	39.5	36.0	4.1	4.7	3.4	7.7	8.6	6.7	8.1	9.2	6.9	60.6	62.0	59.1
50 - 54	1,782,399	901,227	881,172	91.9	91.3	92.4	36.3	38.4	34.2	3.5	4.1	2.8	6.6	7.6	5.6	6.5	7.6	5.3	59.9	61.4	58.3
55 - 59	1,209,275	618,644	590,631	92.0	91.4	92.7	35.7	37.9	33.3	3.0	3.6	2.4	6.2	7.2	5.1	5.6	6.7	4.4	59.8	61.5	58.2
60 - 64	1,092,878	552,961	539,917	92.5	92.1	92.9	33.5	36.0	31.0	2.5	3.0	2.0	4.9	5.9	4.0	4.4	5.4	3.5	58.0	60.3	55.7
65 - 69	661,219	328,019	333,200	92.7	92.3	93.1	32.1	35.2	29.1	2.2	2.7	1.7	4.5	5.5	3.5	3.8	4.7	2.9	56.9	59.7	54.1
70 - 74	573,384	282,166	291,218	93.1	92.8	93.3	29.1	32.2	26.1	1.7	2.1	1.3	3.2	4.0	2.5	2.9	3.6	2.2	53.7	56.9	50.7
75 - 79	332,287	160,250	172,037	92.8	92.9	92.6	26.2	29.3	23.2	1.4	1.7	1.1	2.6	3.0	2.2	2.3	2.9	1.7	49.8	53.7	46.1
80+	514,653	224,316	290,337	92.6	93.3	92.1	23.2	25.8	21.2	1.2	1.4	1.0	2.1	2.2	2.0	1.9	2.3	1.6	45.6	49.8	42.4

5.6 Household Ownership of ICT Equipment by Methods of ICT Equipment Disposal

E-waste disposal refers to the processes and methods used to dispose of unwanted or end-of-life electronic and electrical equipment (EEE), such as mobile phones, computers, televisions, and other ICT equipment. Proper management of this waste is critical since ICT equipment often contains hazardous substances (e.g., lead, mercury, cadmium) as well as recoverable valuable metals (e.g., gold, copper).



The 2022 PHC in Tanzania collected detailed data on e-waste disposal methods, providing evidence aligned with SDGs 12, particularly Targets 12.4 (environmentally sound management of chemicals and wastes) and 12.5 (reduction of waste generation)

The census identified a wide range of electronic waste disposal are;

- i. Mixing electronic waste with other refuse;
- ii. Collected by the Government;
- iii. Collected by a private company;
- iv. Dumped in the compound;
- v. Dumped in the compound/street;
- vi. Dumped in the latrine;
- vii. Burnt in open/pit;
- viii. Buried;
- ix. Sold/given as gift; and
- x. Collected by individuals.

The Census data reveal that unsafe and informal practices remain the overwhelming norm. Nationally, 60 percent of households dispose of e-waste by mixing it with other household refuse. The practice is more widespread in urban areas (72.1%) compared to rural areas (52.1%), indicating greater challenges in cities where ICT penetration is higher but disposal systems are weaker. Other common methods are burning (13.3%) and burying (13.9%), with both practices significantly more prevalent in rural households (16.6% and 17.8%, respectively) than in urban ones (8.3% and 8.1%). These methods reduce visible waste but pose long-term soil and air pollution risks.

Dumping in compounds or streets is far more common in rural settings (5.9%) compared to urban (1.9%), suggesting differences in enforcement of waste management rules and in

household land availability. Recycling-related behaviours, such as selling or giving e-waste as gifts (4.3%) and collection by individuals (1.9%), remain negligible. Even where they occur, such practices are largely informal and lack systematic environmental safeguards.

Formal mechanisms for e-waste collection are virtually absent. Only 1.3% of households report collection by government, while 0.5% rely on private companies. This demonstrates a gap in institutional capacity and regulated systems for safe disposal. Though relatively rare, practices such as dumping e-waste in latrines (0.5%) remain concerning given the risk of contaminating groundwater and sanitation systems.

Figure 5.7: Percentage of Households Owning ICT Equipment by Residence Methods of ICT Equipment Disposal; Tanzania, 2022 PHC

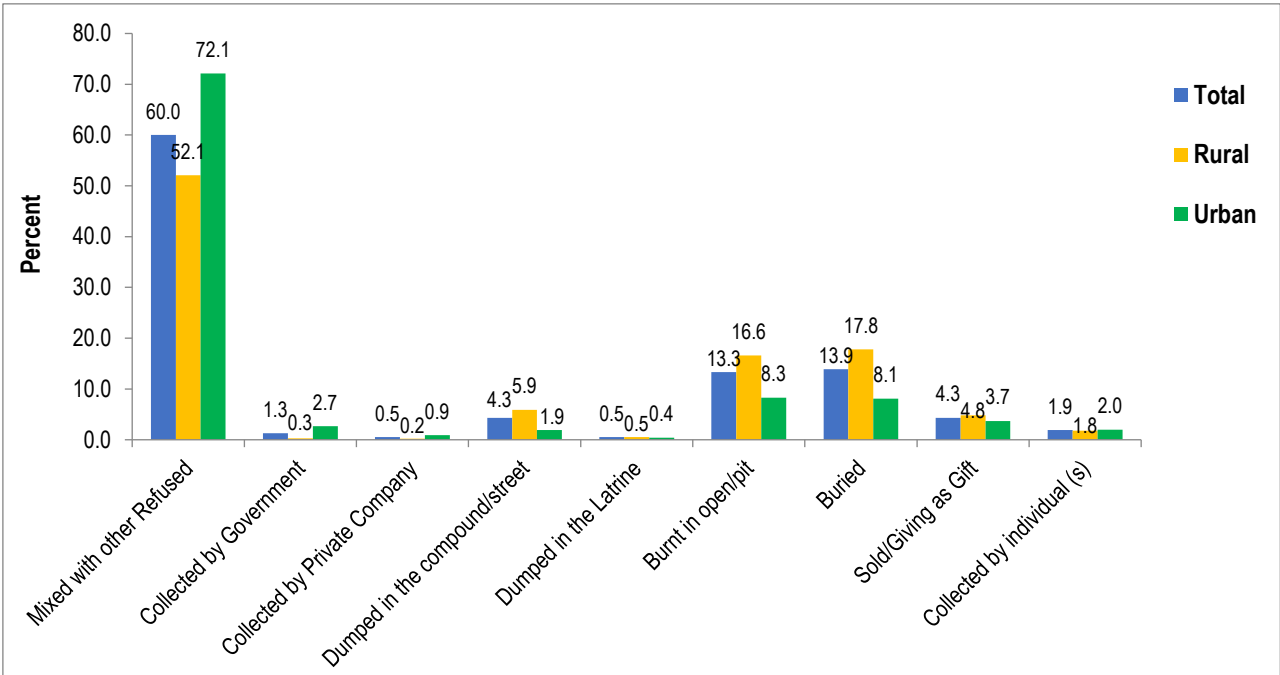


Table 5.8: Percentage of Households Owning ICT Equipment by Place of Residence and Methods Used to Dispose ICT Waste; Tanzania, 2022 PHC

Type of Method	Tanzania			Mainland Tanzania			Tanzania Zanzibar		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Total	14,152,803	8,547,333	5,605,470	13,776,975	8,355,992	5,420,983	375,828	191,341	184,487
Mixed with other Refused	60.0	52.1	72.1	59.6	51.8	71.6	75	64.3	86.1
Collected by Government	1.3	0.3	2.7	1.3	0.3	2.8	1.2	0.5	2.0
Collected by Private Company	0.5	0.2	0.9	0.5	0.2	0.9	0.3	0.3	0.3
Dumped in the compound/street	4.3	5.9	1.9	4.3	5.9	1.9	4.8	7.6	1.9
Dumped in the Latrine	0.5	0.5	0.4	0.5	0.5	0.4	0.2	0.3	0.1
Burnt in open/pit	13.3	16.6	8.3	13.4	16.7	8.4	8.4	13.2	3.4
Buried	13.9	17.8	8.1	14.2	18	8.2	5.8	8.8	2.7
Sold/Giving as Gift	4.3	4.8	3.7	4.4	4.8	3.7	2.3	2.6	1.9
Collected by Individual (s)	1.9	1.8	2.0	1.9	1.8	2.0	2.0	2.4	1.5

The findings underscore a heavy reliance on informal, unsafe, and environmentally damaging methods of e-waste disposal across Tanzania. Rural–urban differences are pronounced: while urban households more often mix e-waste with refuse, rural households are more likely to burn, bury, or dump in their compounds. In both contexts, however, formal and environmentally sound disposal systems are virtually absent.

The results highlight a pressing need to strengthen policy frameworks, public awareness, and infrastructure for sustainable e-waste management. Expanding regulated recycling centres, introducing incentives for refurbishing and reuse, and enforcing producer responsibility (through take-back schemes) could significantly reduce unsafe practices and align Tanzania with global commitments under SDG 12.

5.7 Conclusion

Analysis of household ICT asset ownership in Tanzania reveals a clear urban–rural divide. Mobile phones are the most widely owned asset, with 93.1 percent of urban households owning them compared to 80.1 percent of households in rural areas. The percentage of households owning televisions and computers is much higher in urban households (43.2% and 9.1%) than in rural ones (16.9% and 1.9% respectively). The tendency of urban households to have higher ICT ownership may be attributed to better infrastructure, higher income levels and greater digital literacy.

CHAPTER SIX

SUMMARY, CONCLUSION, POLICY IMPLICATIONS AND POLICY RECOMMENDATIONS

6.1 Introduction

The 2022 PHC was Tanzania's first digital census and, for the first time, gathered comprehensive data on ICT ownership and use. This monograph analyzes mobile phone ownership and usage, internet and computer use, household ICT assets, and e-waste disposal. The findings provide vital evidence for national policy, digital inclusion strategies, and monitoring progress toward Dira 2050, Five-year Development Plan, Ageda 2063, and the Sustainable Development Goals.

6.2 Summary of Key Findings

Mobile Phones:

- Mobile phones are the most widely owned ICT asset, with 53.1 percent of individuals and 85.3 percent of households reporting ownership.
- The majority of individuals rely on non-smartphones (77.9%), while only 1.2 percent use smartphones exclusively.
- Dual ownership of smart and non-smart phones (21.6%) is rising among youth and young adults, indicating a gradual transition to digital technologies.
- Ownership is higher in urban areas (62.1%) than rural areas (48.2%), with gender and wealth disparities evident.

Internet Access and Use:

- Internet use remains relatively low, with only 14.7 percent of the population aged four years and above reporting use.
- Usage is three times higher in urban (27.3%) than rural (7.7%) areas, and higher among men (15.8%) than women (13.6%).
- Young adults (20–34 years) and individuals with higher education dominate internet use. Regional disparities are large, with Dar es Salaam and Mjini Magharibi far ahead of rural regions like Simiyu and Rukwa.
- Persons with disabilities, especially those with communication challenges, show notable but uneven internet use, largely influenced by education attainment.

Computers:

- Computer ownership remains very low, at 2.4% of individuals and 4.8% of households.
- Ownership and use are concentrated in urban areas, among males, and among those with higher education, especially university graduates.
- Persons with seeing disabilities who have attained university education report relatively high rates of computer use, highlighting the role of education in bridging disability-related digital divides.

Household ICT Assets:

- After mobile phones, radios (38.7%) and televisions (27.3%) are the most owned ICT assets.
- Landline phones are nearly obsolete.
- Male-headed households consistently report higher ICT ownership than female-headed households, with the largest gap in computer/laptop ownership (73% vs. 27%).

ICT Usage Patterns:

- ICT is mainly used for communication and mobile money transactions.
- Uses such as learning, entertainment, and online business are more common in urban areas and among youth.
- ICT access and use are strongly correlated with education, occupation, and income.

E-Waste Management:

- Unsafe disposal practices dominate, with 72.1% of urban households and 52.1% of rural households mixing e-waste with other refuse.
- Burning, burial, and dumping are widespread, while formal collection or recycling systems are almost non-existent.
- This poses serious environmental and health risks, especially in urban centres.

6.3 Conclusion

The census findings show that Tanzania achieved near-universal mobile phone penetration, marking a major step in digital connectivity. However, the transition to advanced digital technologies, smartphones, internet access, and computer use, remains slow and uneven. Persistent divides by urban–rural location, gender, education, disability, and household headship reflect structural barriers of affordability, infrastructure, and digital literacy. These

disparities limit the potential of ICT as a driver of inclusive development. At the same time, the dominance of unsafe e-waste disposal underscores the environmental costs of digital growth. Unless addressed, these risks could undermine public health and sustainable development.

Tanzania is at a critical transitional stage: from basic mobile communication to the wider adoption of internet, computers, and safe technology practices. Unlocking this potential will be central to realising *Dira 2050*'s vision of a knowledge-driven economy and ensuring that no citizen is left behind in the digital era.

6.4 Policy and Practical Recommendations

Policy Implications

- i. Enact and enforce gender-responsive ICT policies to reduce digital inequalities.
- ii. Introduce tax incentives and subsidies to lower the cost of smart devices and broadband.
- iii. Integrate e-waste management into the Environmental Management Act and strengthen regulations.
- iv. Institutionalise regular ICT data collection in censuses, surveys, and administrative systems.
- v. Align national ICT strategies with *Dira 2050*, FYDP IV, Agenda 2063, and the SDGs to ensure coherence.

Practical Recommendations

- i. Partner with telecom companies to expand affordable rural broadband and last-mile connectivity.
- ii. Strengthen digital literacy programmes in schools, vocational training centres, and community spaces.
- iii. Support inclusive innovation by promoting mobile-based solutions for farmers, traders, and small businesses.
- iv. Launch public awareness campaigns on safe e-waste disposal, with collection centres in urban and rural areas.
- v. Strengthen public–private partnerships for recycling and reuse of ICT equipment.
- vi. Establish monitoring frameworks to track progress in digital inclusion at community level.

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Appendices

Appendix 1: Contributors to the Mortality and Health Analysis in Tanzania

Census Commissars

Hon. Anne Semamba Makinda (Tanzania Mainland)

Amb. Mohamed Haji Hamza (Tanzania Zanzibar)

NBS/OCGS Chief Government Statistician

Dr. Amina Msengwa (NBS)

Salum Kassim Ali (OCGS)

NBS and OCGS Directors

Ruth Minja	Director of Population Census and Social Statistics – NBS
Emilian Karugendo	Director of Statistical Coordination, Research and Operations – NBS
Daniel Masolwa	Director of Economic Statistics – NBS
Daniel Ulindula	Director of Corporate Services – NBS
Fahima Mohamed Issa	Director of Demographic and Social Statistics – OCGS
Bakari Kitwana Makame	Director of Statistics, Standard and Coordination of Statistics and Research Department - OCGS
Said Mohammed Said	Head of Statistics Office – Pemba – OCGS
Abdalla Khamis Abdalla	Director of Administrative and Planning - OCGS

Census Coordinators

Seif Kuchengo	Population Census and Vital Statistics Manager - NBS
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Technical Advisor

Dr. Rutasha Dadi	Professor of Demography and Population Studies
Steven Lwendo	ICT Expert

Lead Author

Mulhat Omar Saleh	Demographer - OCGS
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Sarah Mohamed	Assistance Cartographer - NBS

Data Processing Expert

Munir Mdee	Senior ICT Officer - NBS
Hashimu Uzia	Principal ICT Officer
Mockray George	Former Principal ICT Officer - NBS

Appendix 2: 2022 Census Questionnaires

 QUESTIONNAIRE FOR THE 2022 POPULATION AND HOUSING CENSUS The United Republic of Tanzania The Sixth Post Union Census 23rd August 2022 Harare Kucheshikwa Strictly Confidential																																						
This census is conducted in accordance with Section 6(2)(a) of the Statistics Act Cap. 351 All responses collected in this census are protected under this Act																																						
SECTION A: IDENTIFICATION																																						
Region	District	Council	Constituency	Division/Wadi	Ward/Shehia	Village/Mtaa	Hamlet/Enumeration Area (EA)	Household Number	CONFIDENTIAL																													
A01 Please State the number all persons who Spent here at the Census Night																																						
SECTION B: DEMOGRAPHICS INFORMATION																																						
B01 No.	B02 HOUSEHOLD MEMBERS	B03 RELATIONSHIP TO THE HEAD	B04 SEX	B05 AGE	B06 MARITAL STATUS (APPLICABLE TO AGE 10+)	B07 MOBILE PHONE (AGE 15+)																																
	Please state the names of all persons who spent the census night, that is Monday night before Tuesday 23rd August, 2022 in your household, starting with the name of the head of household. DO NOT FORGET TO INCLUDE ALL INFANTS, HOUSEHOLD MEMBERS WHO SLEPT IN A NEARBY FUNERAL AND THOSE WORKING NIGHT SHIFTS SUCH AS NURSES, DOCTORS, POLICE, GUARDS, ETC. WRITE DOWN FULL NAME OF EACH HOUSEHOLD MEMBER	What is the relationship of [NAME] to the head of the household? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Head</td> <td>Spouse</td> <td>Son/Daughter</td> <td>Biological Parent</td> <td>Grand Child</td> <td>Other Relative</td> <td>Not Related</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> </tr> </table>	Head	Spouse	Son/Daughter	Biological Parent	Grand Child	Other Relative	Not Related	1	2	3	4	5	6	7	Is [NAME] a male or a female? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Male</td> <td>Female</td> </tr> <tr> <td>1</td> <td>2</td> </tr> </table>	Male	Female	1	2	How old is [NAME]? WRITE AGE IN COMPLETE YEARS. IF UNDER ONE YEAR WRITE '00' FOR 97 YEARS AND ABOVE WRITE '97'	What is current marital status of [NAME]? never married, married, living together, divorced, separated, widowed? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Never Married</td> <td>Married</td> <td>Living Together</td> <td>Divorced</td> <td>Separated</td> <td>Widowed</td> <td>Not Stated</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>9</td> </tr> </table>	Never Married	Married	Living Together	Divorced	Separated	Widowed	Not Stated	1	2	3	4	5	6	9	Please give the mobile number of [NAME]? WRITE THE MOBILE NUMBER OF ALL HOUSEHOLD MEMBERS AGED 15+.
Head	Spouse	Son/Daughter	Biological Parent	Grand Child	Other Relative	Not Related																																
1	2	3	4	5	6	7																																
Male	Female																																					
1	2																																					
Never Married	Married	Living Together	Divorced	Separated	Widowed	Not Stated																																
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SECTION C: INFORMATION ON DISABILITIES/DIFFICULTIES																																																												
B01 No.	C01 ALBINISM	C02 SEEING	C03 HEARING	C04 WALKING	C05 REMEMBERING	C06 SELF CARE																																																						
	Is [NAME] an albino? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Yes</td> <td>No</td> </tr> <tr> <td>1</td> <td>2</td> </tr> </table>	Yes	No	1	2	Does (NAME) have difficulty seeing, even if wearing glasses? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No Difficulty</td> <td>Some Difficulty</td> <td>A Lot of Difficulty</td> <td>Unable to See</td> <td>Not Applicable</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	No Difficulty	Some Difficulty	A Lot of Difficulty	Unable to See	Not Applicable	1	2	3	4	5	Does (NAME) have difficulty hearing, even if using a hearing aid? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No Difficulty</td> <td>Some Difficulty</td> <td>A Lot of Difficulty</td> <td>Unable to Hear</td> <td>Not Applicable</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	No Difficulty	Some Difficulty	A Lot of Difficulty	Unable to Hear	Not Applicable	1	2	3	4	5	Does [NAME] have difficulty walking or climbing steps? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No Difficulty</td> <td>Some Difficulty</td> <td>A Lot of Difficulty</td> <td>Unable to Walk</td> <td>Not Applicable</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	No Difficulty	Some Difficulty	A Lot of Difficulty	Unable to Walk	Not Applicable	1	2	3	4	5	Does (NAME) have difficulty remembering or concentrating? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No Difficulty</td> <td>Some Difficulty</td> <td>A Lot of Difficulty</td> <td>Unable to Remember</td> <td>Not Applicable</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	No Difficulty	Some Difficulty	A Lot of Difficulty	Unable to Remember	Not Applicable	1	2	3	4	5	Does (NAME) have difficulty with self-care, such as washing all over or dressing? <table border="1" style="width: 100%; text-align: center;"> <tr> <td>No Difficulty</td> <td>Some Difficulty</td> <td>A Lot of Difficulty</td> <td>Unable to Care</td> <td>Not Applicable</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	No Difficulty	Some Difficulty	A Lot of Difficulty	Unable to Care	Not Applicable	1	2	3	4	5
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SECTION C: INFORMATION ON DISABILITIES/DIFFICULTIES									
B01	No.	C07 COMMUNICATION USING THE COMMON LANGUAGE: Does [NAME] have difficulty communicating; for example understanding or being understood?	C08 OTHER DISABILITIES Does, [NAME] have other type of disabilities/difficulties among the following? READ ALL TYPES OF DISABILITIES/ DIFFICULTIES TO RESPONDENT Yes = 1 No = 2 Don't know = 9	C09 CAUSE OF DISABILITY ASK FOR EVERY TYPE OF DISABILITY FROM C02 TO C07 IF CODE 3 OR 4 OR CODE 1 IN QUESTION C08 What is the cause of disability for [NAME]? MULTIPLE RESPONSE IS ALLOWED	C10 ASSISTIVE DEVICES AND MATERIALS ASK IF QC01 = 1 OR ANY QUESTION FROM QC02 TO Q07 = 3 OR 4 OR QC08 IS CODE 1 FOR B,C,D Does [NAME] has disability assistive devices or materials? Yes = 1 No = 2				
		No Difficulty Some Difficulty A Lot of Difficulty Unable to communicate Not Applicable	Cleft Palate Hydrocephalus Spinal bifida Spinal cord injuries Epilepsy or seizures Psoriasis Strabismus Autism Mental Health Mental Disorder Person with short stature Leprosy Person with hunchback Other disability	Itchiness Disease Accident Old age Broken Contaminated water Stress Drug abuse Pregnancy/birth complications					
0	1								
0	2								
0	3								
0	4								
0	5								
0	6								
0	7								
0	8								

SECTION A: IDENTIFICATION									
Region	District	Council	Constituency	Division/Wadi	Ward/Shehia	Village/Mtaa	Hamlet/Enumeration Area (EA)	Household Number	CONFIDENTIAL
SECTION D: MIGRATION INFORMATION									
B01	No.	D01 CITIZENSHIP What is (NAME) country of citizenship? IF TANZANIAN, WRITE CODE 001 IF NON-TANZANIAN WRITE APPROPRIATE CODE, FOR DUAL CITIZENSHIP WRITE "888" ►IF THE ANSWER IS CODE OF RESPECTIVE COUNTRY GO TO D03	D02 DUAL CITIZENSHIP What is (NAME) countries of citizenship? WRITE CODES FOR THE COUNTRIES MULTIPLE RESPONSE IS ALLOWED FIRST COUNTRY SECOND COUNTRY	D03 PLACE OF RESIDENCE Which region/country does [NAME] usually live? WRITE CODE FOR THE COUNTRY, REGION AND DISTRICT IF LIVING IN TANZANIA, OR COUNTRY CODE IF LIVING OUTSIDE TANZANIA THEN GO TO THE NEXT QUESTION	D04 WHERE RESPONDENT SPENDS MOST OF THE DAY TIME Where do you spend most of your time during the day? WRITE COUNTRY, REGION AND DISTRICT CODES IF SPENDS MOST OF THE DAY TIME IN TANZANIA OR COUNTRY CODE IF OUTSIDE TANZANIA THEN GO TO THE NEXT QUESTION CODES FOR THE 8th BOX Rural = 1 Regional /District Headquarters = 2 Other Urban = 3	D05 PLACE OF BIRTH In which region/country was [NAME] born? WRITE CODE FOR COUNTRY, REGION AND DISTRICT IF BORN IN TANZANIA OR COUNTRY CODE IF BORN OUTSIDE TANZANIA. IF COUNTRY OF BIRTH IS UNKNOWN WRITE "9999999" ►IF THE RESPONDENT WAS BORN IN THE REGION WHERE THE INTERVIEW IS TAKING PLACE GO TO D10			
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0	2								
0	3								
0	4								
0	5								
0	6								
0	7								
0	8								

SECTION A: IDENTIFICATION																																												
Region		District		Council		Constituency		Division/Wadi																																				
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SECTION D: MIGRATION INFORMATION																																												
B01	D00	D07	D08	D09	D10	D11																																						
No.	TIME OF ARRIVE When did [NAME] arrive to live in this region/country? WRITE MONTH AND YEAR OF ARRIVAL OF A CURRENT PLACE MM YYYY	LIVING PERIOD How long has [NAME] been living in this region/Country? WRITE COMPLETE YEARS. IF LESS THAN ONE YEAR WRITE "00"	PREVIOUS RESIDENCE Where was [NAME] living before coming here? IF IN TANZANIA WRITE CODE 01 FOR RURAL, 02 FOR URBAN AREA AND COUNTRY CODE FOR OUTSIDE TANZANIA AND IF COUNTRY IS UNKNOWN WRITE CODE 999	MAIN REASON FOR MIGRATION What was [NAME]'s main reason for moving to this region/to Tanzania? <table border="1" style="width:100%; font-size: 8px;"> <tr><td>01</td><td>To take up a paid job</td></tr> <tr><td>02</td><td>Job transfer</td></tr> <tr><td>03</td><td>To look for work/green pastures/vacants</td></tr> <tr><td>04</td><td>Study/training</td></tr> <tr><td>05</td><td>Marriage</td></tr> <tr><td>06</td><td>Family re-joining family</td></tr> <tr><td>07</td><td>Medical treatment/health care</td></tr> <tr><td>08</td><td>Conflict/severely natural disaster</td></tr> <tr><td>09</td><td>Looking for suitable land for agriculture</td></tr> <tr><td>10</td><td>Looking for suitable site for fishery activities</td></tr> <tr><td>11</td><td>Looking for suitable grazing land</td></tr> <tr><td>12</td><td>Cost of living</td></tr> <tr><td>13</td><td>Moving into a new homestead</td></tr> <tr><td>14</td><td>Visit/friend/family</td></tr> <tr><td>15</td><td>Conflict of Marriage/family</td></tr> <tr><td>16</td><td>Death of parent (s)</td></tr> <tr><td>17</td><td>To be cared</td></tr> </table>	01	To take up a paid job	02	Job transfer	03	To look for work/green pastures/vacants	04	Study/training	05	Marriage	06	Family re-joining family	07	Medical treatment/health care	08	Conflict/severely natural disaster	09	Looking for suitable land for agriculture	10	Looking for suitable site for fishery activities	11	Looking for suitable grazing land	12	Cost of living	13	Moving into a new homestead	14	Visit/friend/family	15	Conflict of Marriage/family	16	Death of parent (s)	17	To be cared	PLACE OF RESIDENCE IN YEAR 2012 In which Region /Country was [NAME] living during 2012 census? WRITE CODE FOR THE COUNTRY, REGION AND DISTRICT IF LIVING IN TANZANIA, OR COUNTRY CODE IF LIVING OUTSIDE TANZANIA THEN GO TO THE NEXT QUESTION IF COUNTRY IS UNKNOWN WRITE CODE 999 ► TO BE ASKED FOR PERSONS AGED 11 YEARS OR ABOVE	PLACE OF RESIDENCE IN YEAR 2021 In which Region /Country was [NAME] living in 2021? WRITE CODE FOR THE COUNTRY, REGION AND DISTRICT IF LIVING IN TANZANIA, OR COUNTRY CODE IF LIVING OUTSIDE TANZANIA THEN GO TO THE NEXT QUESTION ► FOR CHILDREN AGED '00' DON'T ASK THIS QUESTION SKIP TO E01				
01	To take up a paid job																																											
02	Job transfer																																											
03	To look for work/green pastures/vacants																																											
04	Study/training																																											
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SECTION E: INFORMATION ON POSSESSION OF NATIONAL DOCUMENTS AND ORPHANHOOD																															
B01	E01	E02	E02F	E03																											
No.	BIRTH CERTIFICATE, PASSPORT, AND HEALTH INSURANCE Does [NAME] have the following Identification? Yes = 1 No = 2 Don't know = 9 QUESTION E01F SHOULD BE ASKED FOR A PERSON AGED 60 YEARS OR ABOVE	OTHER DOCUMENTS - FOR PERSON AGED 18+ Does [NAME] have the following National Documents? Yes = 1 No = 2 Don't know = 9 ► IF D01 NOT TANZANIAN DON'T ASK CODE C, E AND F E02A1: IF A or B IS CODE 1, ASK, Please, mention National ID number of [NAME] E02C1: IF CODE C IS 1, ASK, Please, mention Zanzibar ID number of [NAME]	ENTREPRENEUR ID - FOR PERSON AGED 5+ ► IF D01 NOT TANZANIAN DON'T ASK THIS QUESTION Does [NAME] have small entrepreneur ID? Yes = 1 No = 2 Don't know = 9 IF CODE 2 OR 9 SKIP TO E03 E02F1: IF CODE 1, ASK, Please, mention Entrepreneur ID number of [NAME] IF ID IS NOT FOUND OR DOES NOT REMEMBER THE ID NUMBER WRITE CODE "999999999"	SURVIVAL OF PARENTS (APPLICABLE TO PERSONS BELOW AGE 18) Is [NAME]'s Father alive? Is [NAME]'s Mother alive? Yes = 1 No = 2 Don't Know = 9																											
	<table border="1" style="width:100%; font-size: 8px;"> <tr><td>A</td><td>Birth Certificate</td></tr> <tr><td>B</td><td>Birth Notification</td></tr> <tr><td>C</td><td>Travel Passport</td></tr> <tr><td>D</td><td>National Health Insurance/Community Health Insurance</td></tr> <tr><td>E</td><td>Other Health Insurance</td></tr> <tr><td>F</td><td>Card for elderly treatment</td></tr> </table>	A	Birth Certificate	B	Birth Notification	C	Travel Passport	D	National Health Insurance/Community Health Insurance	E	Other Health Insurance	F	Card for elderly treatment	<table border="1" style="width:100%; font-size: 8px;"> <tr><td>A</td><td>National ID (NIDA)</td></tr> <tr><td>B</td><td>National ID Number (NIDA)</td></tr> <tr><td>C</td><td>Zanzibar ID</td></tr> <tr><td>D</td><td>Driving Licence</td></tr> <tr><td>E</td><td>Voter's ID</td></tr> </table>	A	National ID (NIDA)	B	National ID Number (NIDA)	C	Zanzibar ID	D	Driving Licence	E	Voter's ID	FILL ID NUMBER	FILL ID NUMBER					
A	Birth Certificate																														
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SECTION F: EDUCATION INFORMATION - ALL PERSONS AGED 4 YEARS OR ABOVE																															
B01 No.	F01 READING AND WRITING Can [NAME] read and write a short sentence in Kiswahili, English, Kiswahili and English or any other language? Kiswahili = 1 English = 2 Kiswahili and English = 3 Other Languages = 4 Illiterate = 5	F01A NUMERACY Can [NAME] do a simple arithmetics addition, subtraction, division or multiplication? Yes = 1 No = 2	F02 SCHOOL ATTENDANCE Is [NAME] currently attending, partially attended, completed or never attended school? Now attending =1 Partially attended =2 Completed =3 Never attended =4 ► IF CODE 1 OR 3 SKIP TO F04	F03 REASON FOR SCHOOL DROPOUT - 4 TO 24 YEARS What was the main reason for [NAME] school dropout/never attended? <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Financial Constraints</td> <td>School too far away</td> <td>Ill/Sick</td> <td>Disability</td> <td>Pregnancy</td> <td>Tuancy/Refusal</td> <td>Indispline behaviour /Expulsion</td> <td>To work/looking for work</td> <td>Caring for the sick/children</td> <td>Marriage</td> <td>Difficulty/dangerous environment</td> <td>Unfriendly infrastructure</td> <td>Not started school</td> </tr> <tr> <td>01</td> <td>02</td> <td>03</td> <td>04</td> <td>05</td> <td>06</td> <td>07</td> <td>08</td> <td>09</td> <td>10</td> <td>11</td> <td>12</td> <td>13</td> </tr> </table>	Financial Constraints	School too far away	Ill/Sick	Disability	Pregnancy	Tuancy/Refusal	Indispline behaviour /Expulsion	To work/looking for work	Caring for the sick/children	Marriage	Difficulty/dangerous environment	Unfriendly infrastructure	Not started school	01	02	03	04	05	06	07	08	09	10	11	12	13	F04 LEVEL OF EDUCATION ► ASK IF F02 CODED 1, 2 OR 3 What level of education has [NAME] completed or is currently attending? WRITE THE APPROPRIATE CODE
Financial Constraints	School too far away	Ill/Sick	Disability	Pregnancy	Tuancy/Refusal	Indispline behaviour /Expulsion	To work/looking for work	Caring for the sick/children	Marriage	Difficulty/dangerous environment	Unfriendly infrastructure	Not started school																			
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06																															
07																															
08																															

Codes for F03	
Education level	Code
Pre Primary	00
Std 1	01
Std 2	02
Std 3	03
Std 4	04
Std 5	05
Std 6	06
Std 7	07
Std 8	08

Secondary Education	
Education level	Code
Pre form one	18
Form 1	09
Form 2	10
Form 3	11
Form 4	12
Form 5	13
Form 6	14

Education after Primary/Secondary School	
Education level	Code
University and other related	15
Training after Primary Education	16
Training after secondary education	17
Unit (People with mental disabilities/mental health disabilities)	19

SECTION A: IDENTIFICATION									
Region	District	Council	Constituency	Division/Wadi	Ward/Shehia	Village/Mtaa	Hamlet/Enumeration Area (EA)	Household Number	CONFIDENTIAL

SECTION G: INFORMATION ON ECONOMIC ACTIVITY - ALL PERSONS AGED 5 YEARS OR ABOVE														
B01 No.	G01 WORK DURING LAST WEEK During the period of Last week, which of the following work/activity did [NAME] do for many hours? ENUMERATOR: READ CATEGORIES <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>To take up a paid job</td> <td>Do activity or business for generate income/help a family member in paid job or business?</td> <td>Work or help in family agricultural activities including crop farming, livestock or fishing?</td> <td>Own account work - Prepare or preserve food or drinks for storage/Construction work or help a family member with similar</td> <td>Did not do any work or activity</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </table>	To take up a paid job	Do activity or business for generate income/help a family member in paid job or business?	Work or help in family agricultural activities including crop farming, livestock or fishing?	Own account work - Prepare or preserve food or drinks for storage/Construction work or help a family member with similar	Did not do any work or activity	1	2	3	4	5	G02 TEMPORARY ABSENCE Even though [NAME] did not work last week, did [NAME] have a paid job, or any kind of business, or farming or other activity to generate income that you were absent from and definitely you will return to? EXAMPLES OF TEMPORARY ABSENCE • WAGE JOBS: LEAVE, STOOD DOWN, ILLNESS, STUDY LEAVE BUT STILL ATTACHED TO A JOB • BUSINESS/AGRIC: TEMPORARY ABSENCES WHILE ACTIVITY CONTINUES DURING THAT ABSENCE; • UNPAID WORKERS AND CASUAL WORKERS SHOULD NOT BE INCLUDED UNDER TEMPORARY ABSENT. Yes 1 No 2	G03 SEEKING WORK Did [YOU/NAME] taken any steps during the past four weeks to look for a paid job or start a business or an activity to generate income?	G04 AVAILABLE TO WORK At present are [YOU/NAME] available to take up a paid job, or do any kind of business, farming or any activity to generate income if such opportunity arises?
To take up a paid job	Do activity or business for generate income/help a family member in paid job or business?	Work or help in family agricultural activities including crop farming, livestock or fishing?	Own account work - Prepare or preserve food or drinks for storage/Construction work or help a family member with similar	Did not do any work or activity										
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[illegible][illegible][illegible]

G10	G16 AGRICULTURAL ACTIVITIES		G11 TYPES OF CROPS		G12 LEGAL RIGHT OVER THE OWNERSHIP		G13 TYPES OF LIVESTOCK		G14 TYPES OF FISHERY AND AQUACULTURE		G15 TYPES OF FOREST TREES																																																																																																																																																																		
No.	Does [NAME] involved in agricultural activities during 2021/22 agricultural year?		Fill Crop Type Codes (At most two)		What legal right do you have over the ownership of the land used for crop production in the agricultural year 2021/22?		Fill Livestock Type Codes (At most two)		Fill Capture Fishery, Aquaculture Activity and Sea Weeds production Codes (At most two)		Fill Forestry/Tree Activity Type Codes (At most two)																																																																																																																																																																		
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Rice	11	Field peas	37	Banana	71	Lemon	215	Seaweed	19
Paddy	12	Fist	101	Avocado	72	Raspberry	216	Cashew nut	46
Sorghum	13	Sunflower	41	Mango	73	Plover	217	Tobacco	51
Burkush Millet	14	Sesame	42	Papaw	74	Lime	851	Pyrethrums	52
Finger Millet	15	Groundnut	43	Pineapple	75	Lemon	852	Sisal	53
Wheat	16	Palm Oil	44	Orange	76	Cabbage	86	Coffee	54
Barley	17	Cocunut	45	Grapes	78	Spinach	88	Tea	55
Cassava	21	Soybeans	47	Mandarin	79	Carrot	89	Cocoa	56
Sweet Potatoes	22	Caster seed	48	Guava	80	Chilies	90	Rubber	57
Irish potatoes	23	Cotton	50	Plums	81	Amaranthus	91	Sugar cane	60
Yams	24	Malay apple	38	Apples	82	Pumpkins	92	Cardamom	61
Cocoyams	25	Bread fruit	67	Pears	83	Cucumber	93	Jute	62
Onions	26	Jack fruit	69	Peaches	84	Egg Plant	94	Cinnamon	64
Ginger	27	Passion Fruit	70	Durian	97	Water Melon	95	Clove	66
Garlic	28	Solanum Nigrum	903	Mambutan	99	Cauliflower	96	Olive	110
Beans	31	collard greens	904	Custard Apple	200	Okra	100	Green Tomato	300
Cowpeas	32	Grapefruit	77	God Fruit	201	Coriander seed	102	Lemon grass	307
Green gram	33	Pomeio	68	Plum	203	Tomatoes	871	Other	998
Pigeon pea	34	Bilimbi	98	Date	210	White eggplant	872	Pumpkin leaves	906
Lentils	35	Star fruit	39	Vanilla	212	Green pepper	901	Black Pepper	18
Bambara nuts	36	Nutmeg	65	Strawberry	213	Brocol	905	Not applicable	999

Cattle	1
Goat	2
Sheep	3
Pig	4
Horse	5
Donkey	6
Chicken	7
Duck	8
Turkey	9
Rabbit	10
Other livestock	98
Not Applicable	99

Capture Fishery	1
Aquaculture (fish farming, crab, etc exclude sea weed)	2
Sea Weed Production	3
Not Applicable	9

Seed Keeping	1
Production of Seeding	2
Tree Plantation	3
Forest Product	4
Gathering and Hunting	5
Other forestry activities	8
Not Applicable	9

SECTION A: IDENTIFICATION																																																
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SECTION G: INFORMATION ON ECONOMIC ACTIVITY - ALL PERSONS AGED 5 YEARS OR ABOVE																																																
B01	G15	G16 ECONOMIC ACTIVITY				G17 BUSINESS LOCATION		G18 MACHINGA UNION FEDERATION - SHIUMA MEMBERSHIP		G19 CURRENT CAPITAL (TZS)								G20 MAIN SOURCE OF CAPITAL																														
No.	Does [NAME] engage in any informal economic activity? Yes = 1 No = 2 ► IF CODE 2 SKIP TO H01	What is the main activity of [NAME]'s business? WRITE ACTIVITY FULLY OR AT LEAST IN TWO WORDS DESCRIPTION ISIC CODE				In which area does [NAME] mostly work?		Is [NAME] a member of Machinga Union Federation (SHIUMA)? Yes = 1 No = 2		Currently, how much capital does [NAME] have? <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Less than 10,000</td> <td>10,000 - 49,999</td> <td>50,000 - 99,999</td> <td>100,000 - 199,999</td> <td>200,000 - 499,999</td> <td>500,000 - 999,999</td> <td>1,000,000 - 9,999,999</td> <td>10,000,000 or more</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> </table>								Less than 10,000	10,000 - 49,999	50,000 - 99,999	100,000 - 199,999	200,000 - 499,999	500,000 - 999,999	1,000,000 - 9,999,999	10,000,000 or more	1	2	3	4	5	6	7	8	What is the main source of [NAME]'s capital?														
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CODES FOR QUESTION G17

WITHOUT PERMANENT PREMISES

Hawking/mobile	01
Improvised post on the roadside	02
Permanent post on the roadside	03
Vehicle, motor bike, Tricycle, Bicycle	04
Customer's home	05
In my own/partner's home without special installation	06
Online business	07
Improvised post in a market	08
Garbage area	09
Construction sites	10
Other without permanent premises	11

WITH PERMANENT PREMISES

Permanent premises in a market (shop, kiosk, shed)	12
Workshop, shop, restaurant, hotel	13
Taxi station in permanent structure/ Public transport with fixed route	14
Bicycle /Boda boda/ Tricycle stations	15
Mining site	16
Farm/fishing or grazing area	17
Industrial area	18
Other area with permanent premises	19
In my own/partner's home with special installation	20

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SECTION H: LAND OWNERSHIP AND INFORMATION REGARDING ICT																																																																			
B01	LAND OWNERSHIP - ALL PERSONS								INFORMATION REGARDING ICT - 4 YEARS OR ABOVE																																																										
No.	H01 OWNERSHIP OF LAND				H02 TITLE DEED				H03 EQUIPMENTS OWNERSHIP				H04 EQUIPMENTS USED				H05 EQUIPMENT USE																																																		
	Does [NAME] own any agricultural or non agricultural land either alone or jointly with someone else? ► IF THE ANSWER IS 4 OR 9 SKIP TO H03				Does [NAME] have title deed with his/her name on it?				Did [NAME] own the following equipments in the past 3 months? YES = 1 NO = 2 Don't Know = 9				Did [NAME] use the following equipments in the past 3 months? Yes = 1 No = 2 Don't Know = 9 ► IF CODE 2 OR/AND 9 FOR ALL, SKIP TO QN. I01				In which of the following activities did [YOU/NAME] you use the equipments? Yes = 1 No = 2 Don't Know = 9 READ ALL CATEGORIES																																																		
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SECTION I: INFORMATION ON FERTILITY - FEMALES AGED 10 YEARS OR ABOVE																			
B01		CHILDREN EVER BORN - CHILDREN SURVIVING										FERTILITY IN LAST 12 MONTHS FOR WOMEN AGED 10 TO 49 YEARS							
No.		I01 BIRTH		I02 BORN ALIVE IN HOUSEHOLD				I03 BORN ALIVE LIVING ELSEWHERE				I04 CHILDREN DIED				I05 CHILDREN BORN ALIVE			
		Have you ever given live birth?		How many male/female children were born alive to [NAME] and are now living with you/her in this household?				How many male/female children were born alive to [NAME] and are now living elsewhere?				How many male/female children were born alive to [NAME] and are now unfortunately dead?				How many of the male/female children who were born alive to [NAME] in the last 12 months? (22 AGOST, 2022 BACK TO 23 AGOST, 2021)			
		Yes = 1 No = 2 ► IF CODE "2" SKIP TO I04		IF SHE IS NOT LIVING WITH ANY OF HER CHILDREN WRITE "00"				IF SHE HAS NO CHILDREN LIVING ELSEWHERE WRITE "00"				IF NONE OF HER CHILDREN HAS DIED WRITE "00" ► IF QN I01 = 2 AND I04 = 0 SKIP TO J01				IF THERE IS NO CHILD SURVIVING WRITE "0" ► IF THERE IS NO CHILD BORN ALIVE IN THE LAST 12 MONTHS WRITE "0" THEN GO SECTION J. DON'T ASK FEMALES AGED 50 YEARS OR ABOVE			
				MALE FEMALE				MALE FEMALE				MALE FEMALE				MALE FEMALE			
0	1																		
0	2																		
0	3																		
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SECTION J: INFORMATION ON GENERAL AND MATERNAL DEATHS IN THE HOUSEHOLD																																			
PLEASE RECORD INFORMATION ON DEATHS THAT OCCURRED IN THE HOUSEHOLD DURING THE LAST 12 MONTHS. DO NOT FORGET CHILDHOOD MORTALITY																																			
J01		Was there any death which occurred in this household during the last 12 months? (i.e. 22 AUGUST 2022 - 23 AUGUST 2021)										J02 How many number of death occurred in this household during the last 12 months																							
		Yes = 1 No = 2 ► IF THE ANSWER IS NO, SKIP TO SECTION K										RECORD THE NUMBER OF DEATHS																							
J03		SEX AND AGE OF DECEASED; AND CAUSE OF DEATH										IF DEATH IS OF A WOMAN AGED 10 TO 49 YEARS																							
Death Serial Number		J04 SEX OF DECEASED		J05 AGE OF DECEASED		J06 CAUSE OF DEATH						J07 DURING PREGNANCY		J08 DURING CHILDBIRTH		J09 DURING SIX WEEKS		J10 PLACE OF DEATH																	
		Was the deceased a male or a female?		How old was the deceased at the time of death?		What was the main cause of death?						Did the death occur during pregnancy?		Did the death occur during childbirth?		Did the death occur during the 6 weeks period following the end of pregnancy, irrespective of the way the pregnancy ended?		ASK IF QJ07 OR J08 OR J09 = 1 Did this death occurred at home or in health facility?																	
		Male = 1 Female = 2		WRITE AGE IN COMPLETE YEARS. IF UNDER ONE YEAR WRITE "00" IF 97 YEARS OR ABOVE WRITE "97"		<table border="1" style="width:100%; text-align: center;"> <tr> <td>Road Accident</td> <td>Other Accidents</td> <td>Suicide</td> <td>Domestic Violence/Homicide</td> <td>Sickness/Disease</td> <td>Maternal Death</td> <td>Killed</td> <td>Unspecified reasons</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> </table>						Road Accident	Other Accidents	Suicide	Domestic Violence/Homicide	Sickness/Disease	Maternal Death	Killed	Unspecified reasons	1	2	3	4	5	6	7	8	Yes = 1 No = 2 ► IF CODE 1 SKIP TO QUESTION J10		Yes = 1 No = 2 ► IF CODE 1 SKIP TO QUESTION J10		Yes = 1 No = 2		Home = 1 Health facility = 2 On the way = 3	
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K12 Which authorities usually collect waste from your household?		K13 Does your household usually sort kitchen waste, plastic waste, glass waste, metal waste and electronic waste?		K14 What is the main method that is used by your household to dispose E-Waste?		K15 OWNERSHIP OF EQUIPMENTS/ASSETS																																																																																																	
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SECTION L: INFORMATION ON AGRICULTURE, LIVESTOCK, FISHERIES AND FORESTRY																																																	
L01 AGRICULTURE Did this household use the land for crop production in the agricultural year 2021/22? Yes = 1 No = 2 ☐ ▶ IF CODE 2 SKIP TO L03 IF CODE 1, how many acres is the land used for agriculture? LAND FOR CROP PRODUCTION SHOULD BE AT LEAST 25 SQUARE METERS	L02 CROPS Which of the following crops did the household grow during 2021/22 agricultural year? MULTIPLE RESPONSE IS ALLOWED Yes = 1 No = 2 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>Maize</td> <td>Paddy</td> <td>Cassava</td> <td>Banana</td> <td>Sunflower</td> <td>Other food crops</td> <td>Cash crops</td> </tr> <tr> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>	Maize	Paddy	Cassava	Banana	Sunflower	Other food crops	Cash crops	A	B	C	D	E	F	G	☐	☐	☐	☐	☐	☐	☐	L03 LIVESTOCK Did this household raise or care cattle, goats, sheep or poultry for the agricultural year 2021/22? Yes = 1 No = 2 ☐ ▶ IF CODE 2 SKIP TO L06	L04 NUMBER OF LIVESTOCK How many cattle, goats, sheep, pig, donkey or poultry were available during the Census night IF NO LIVESTOCK, WRITE CODE "00000" <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>Cattle</td><td> </td></tr> <tr><td>Goat</td><td> </td></tr> <tr><td>Sheep</td><td> </td></tr> <tr><td>Pig</td><td> </td></tr> <tr><td>Donkey</td><td> </td></tr> <tr><td>Poultry</td><td> </td></tr> </table>	Cattle		Goat		Sheep		Pig		Donkey		Poultry		L05 TYPE OF GRAZING What type of grazing is practiced in this household? Free range = 1 Zero grazing = 2 Ranch = 3 Pastoralism = 4 THIS QUESTION SHOULD BE ASKED FOR EACH TYPE OF LIVESTOCK MENTIONED IN QUESTION L04 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>Cattle</td><td> </td></tr> <tr><td>Goat</td><td> </td></tr> <tr><td>Sheep</td><td> </td></tr> <tr><td>Pig</td><td> </td></tr> <tr><td>Donkey</td><td> </td></tr> <tr><td>Poultry</td><td> </td></tr> </table>	Cattle		Goat		Sheep		Pig		Donkey		Poultry	
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L06 FISHING/SEAWEED FARMING Did this household engaged in fishing/fish farming/Sericulture/crabs/seaweed farming activities for the agricultural year of 2021/22? MULTIPLE RESPONSE ALLOWED Yes = 1 No = 2 <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr><td>A Fishing</td><td>☐</td></tr> <tr><td>B Fish farming/Sericulture/Crabs</td><td>☐</td></tr> <tr><td>C Seaweed farming</td><td>☐</td></tr> </table>	A Fishing	☐	B Fish farming/Sericulture/Crabs	☐	C Seaweed farming	☐	L07 OWNERSHIP OF PLANTATION Did this household operate any land for woodlot(s) during 2021/22 agricultural year? Yes = 1 No = 2 ☐ LAND FOR WOODLOTS SHOULD BE AT LEAST 0.5 ACRES		L08 BEEKEEPING Is there any person in this household involved in beekeeping business/activity? Yes, individually = 1 Yes, in groups = 2 No = 3 ☐																																								
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INFORMATION ON PHYSICAL ADDRESS	
A01A	Does this household have a physical address? Yes = 1 No = 2 ☐ ▶ IF CODE 2 SKIP TO SECTION Z
A01B	Please, state the Physical Address Number
A01C	Name of the Road/Hamlet

SECTION Z: TOTAL NUMBER OF HOUSEHOLD MEMBERS	
Male	
Female	
Total	
Date of Interview	

