Looking towards a Brighter Tomorrow

Housing and Household Assets of the Somali People

Volume 5

UNFPA

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MAPS AND DESIGNATIONS
The designations used for the maps in this report are the 1986 pre-war geographic regions and boundaries of Somalia. These do not imply any expression of opinion whatsoever on the part of UNFPA concerning the legal status of any administration and its authorities. It is important to note that regions and districts have changed and the newly established regions may have no link to the pre-war regional and district boundaries used in this analysis.

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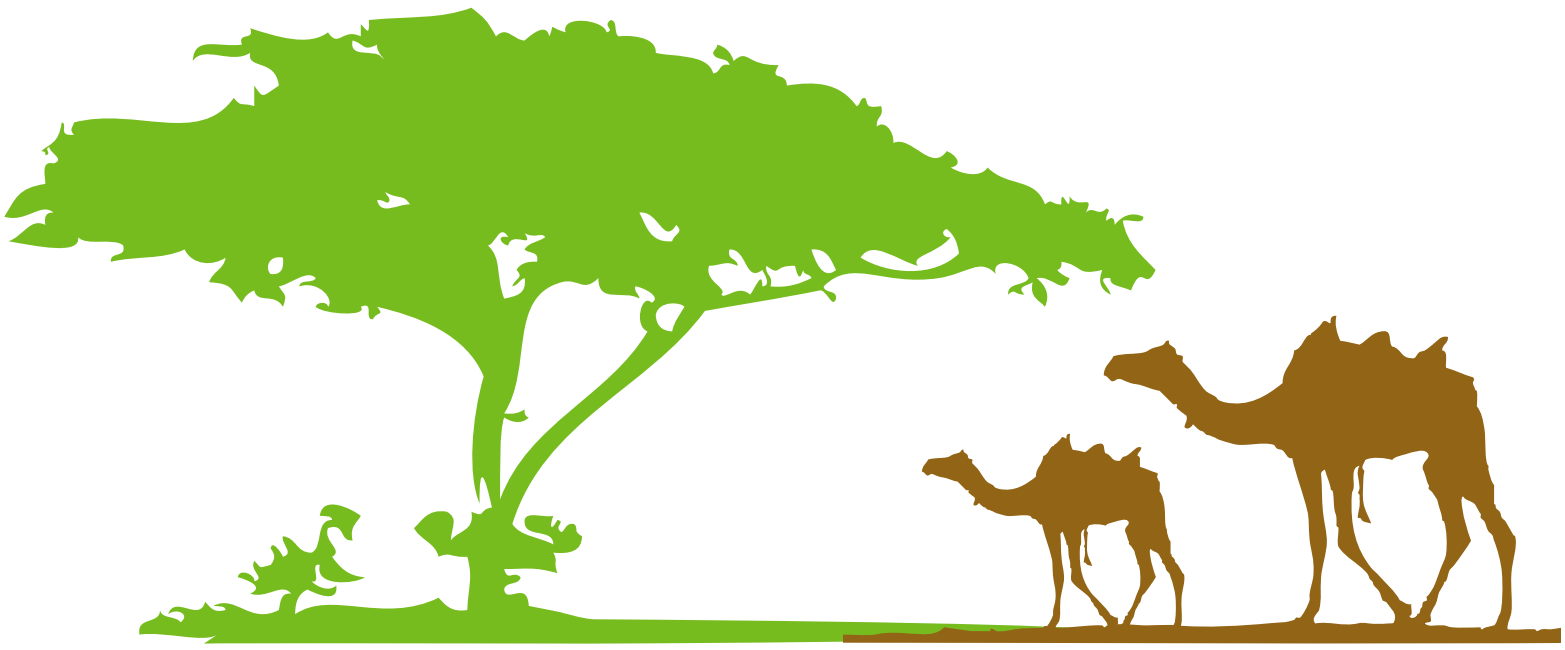
The Federal Government of Somalia covers South-West, Juba-land, Galmudug and Puntland; Somaliland declared its unilateral independence in May 1991 and is yet to be recognised internationally.

Housing and Household Assets of the Somali People

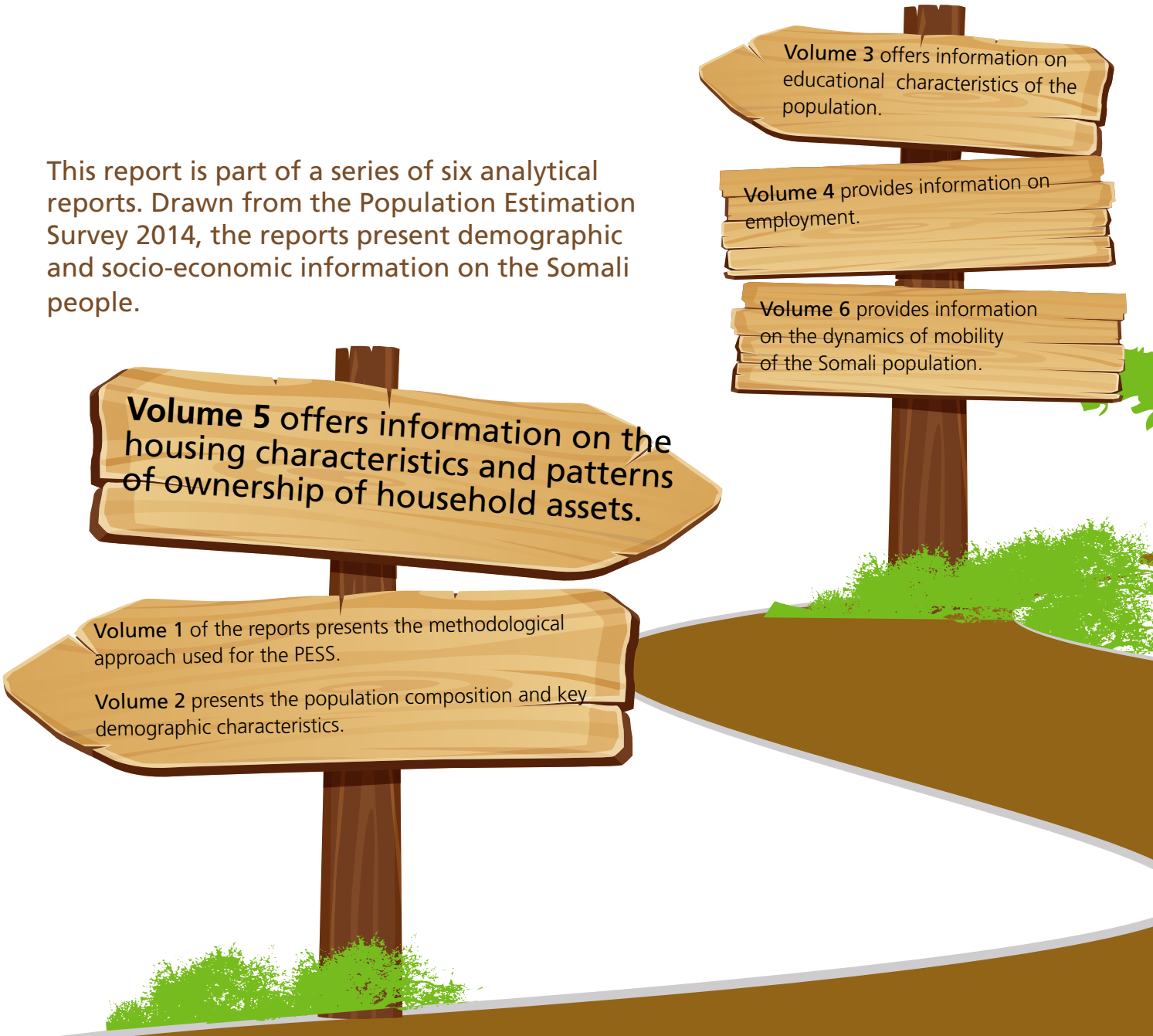
Volume 5



Data for a Better Tomorrow

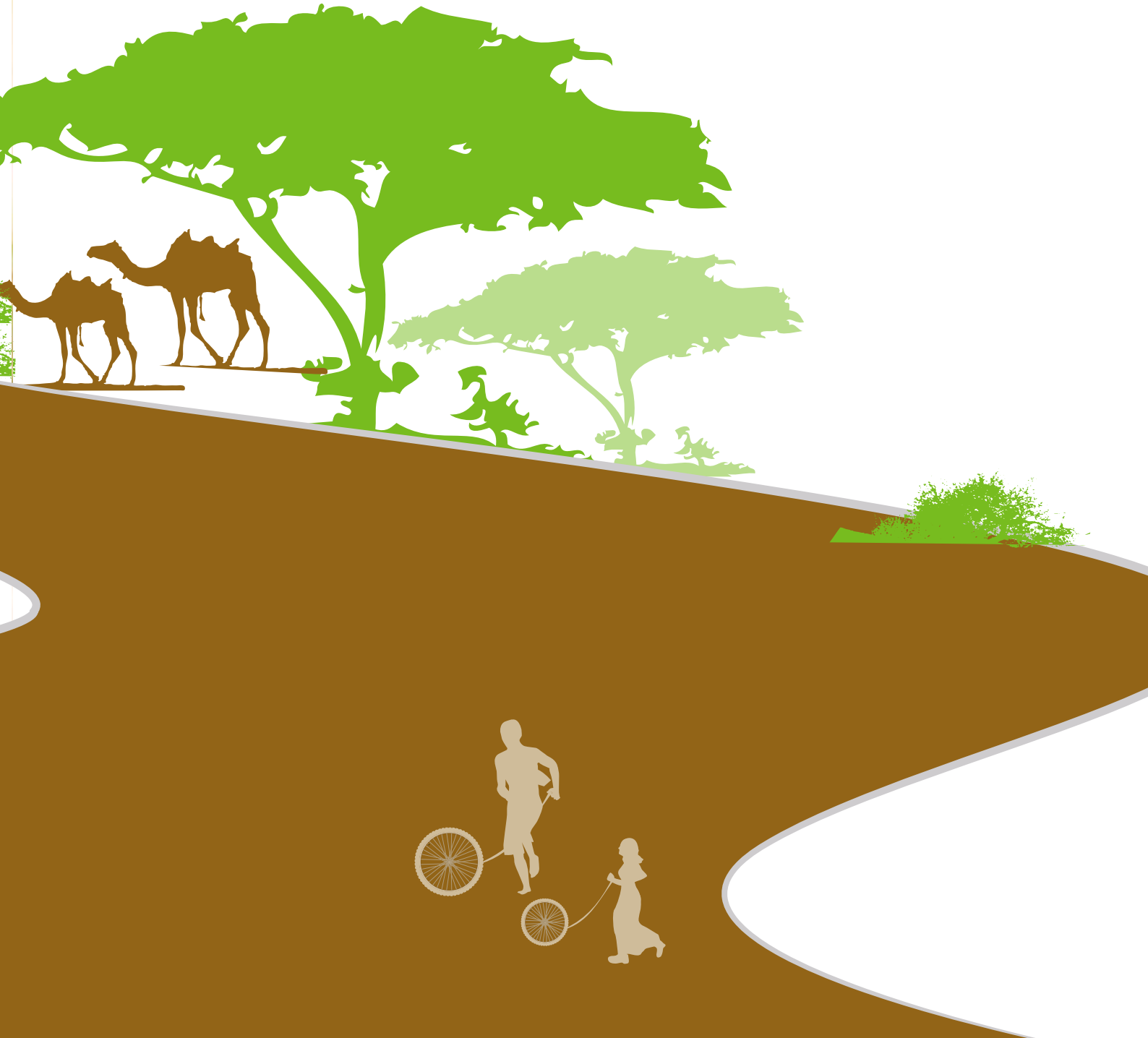
PESS 2016

This report is part of a series of six analytical reports. Drawn from the Population Estimation Survey 2014, the reports present demographic and socio-economic information on the Somali people.



“Without data, you’re just another person with an opinion.”

W. Edwards Deming



FOREWORD

On behalf of the UN Country Team, it is my pleasure to present this volume, which is part of a series of analytical reports based on 2014 Population Estimation Survey (PESS) data. These reports are expected to change the rhetoric on the absence of information about the lives of Somalis. The PESS is the first large-scale household sample survey to be conducted to estimate the Somali population in more than three decades. Along with reliable population estimates, this series of analytical reports provides a comprehensive picture of Somalis and the lives they lead. It tells their story: how and where they live; how old their family members are; how many are men, women or children; how many have access to education; how many are employed; what kind of assets they own; their mobility patterns– among other crucial social and economic indicators. The United Nations Population Fund (UNFPA) took on this task jointly with the Somali authorities, and with the support from the United Kingdom (UK) Department for International Development (DfID) and the Swedish Embassy.

The aims of the series of the analytical reports are to provide a sound foundation of information for policymakers and political, economic and social actors to craft articulate strategies and to avail much-needed benchmark population data. The findings provide valuable insights into the challenges faced by the Somalis on the road to build a stable and peaceful future. For example, due to the high fertility, the proportion of children is very high, while that of the working age population (15-64 years) is relatively small. This creates a 'burden' for the working age population to cater for the needs of the young and the older persons. Somalis' age dependency ratio (which measures this 'demographic burden') is higher than in most of the neighbouring countries. In addition, nearly half of the working age population is economically inactive which means that the economic dependency burden on the labour force (i.e. the employed and unemployed) is nearly doubled. Just under a quarter of the labour force is unemployed. The Somali unemployment rates are close to those of Ethiopia and Sudan.

In addition to the wealth of information that the analytical reports provide, the two years of meticulous planning, implementation of the survey, and analysis of information have left a great legacy for future generations, including a strengthened Somali statistical system and on increased capacity to conduct similar large-scale surveys. This is also a stepping stone towards a potential population and housing census in the future.

A mammoth task of this kind can only be the result of hard work, commitment and dedication of several individuals and institutions. They range from Somali authorities, who guided the undertakings, Somalis who allowed us to take a glimpse of their lives, enumerators walking from door to door at times under trying circumstances to collect information, to donor agencies providing support at every stage, among other partners.

I remain hopeful that Somalis and development and humanitarian agencies working to support them will be able to use this information to draw up effective plans and programmes that aim to improve the stories and lives of Somalis.

Peter de Clercq (signed)
Deputy Special Representative of the UN Secretary-General,
UN Resident and Humanitarian Coordinator for Somalia,
UNDP Somalia Resident Representative

PREFACE

The United Nations Population Fund has the honour of unveiling a milestone for the Somali people: a series of analytical reports based on the data of the 2014 Population Estimation Survey.

It has been a privilege for UNFPA to work closely with and be guided by the Somali authorities and experts in the preparation of these reports. I would like to commend the hard work that went into their production. The analysis helped to uncover and present crucial information on the Somali population. This would not have been possible without the cooperation of the numerous Somali officials and experts who supported the process and shared information with us, and those who braved through various circumstances to collect and record information.

The publication of these reports would not have been possible without the generous contribution from the UK Department for International Development (DfID). DfID helped to turn a Somali dream into reality, through capacity building for the Somali experts involved in the writing of the reports, and promoting the widest possible use of the PESS data. I would also like to thank the Swedish Embassy for their invaluable support through all stages of the PESS project.

We now have much-awaited information about the lives and needs of the Somali people, such as how many women, youth and children there are; where they live; who the most vulnerable members of the society are; what kind of educational levels they have had access to; what household assets they own; how many are seeking employment; and how many are moving across national and international borders, among other indicators. This information serves as a reference for development and a benchmark to measure the progress made.

I would urge Somali authorities, and their national and international partners, including institutions of higher learning to use the PESS data and the information these analytical reports present. Every number tells a story about a Somali household, and the life it leads.

From the numbers presented, it is evident that the country is demographically very young, with three-quarters of the population under 30 years of age. Only two out of ten children of primary schoolgoing age are currently enrolled in school. Two out of ten households are headed by women, with a further two in a thousand households headed by children. One in ten under-eighteens has been married at least once in their lives. Two in ten households have no access to a human waste disposal facility. For every one thousand Somalis living in the country, twenty one are living outside the country.

So far, numerous attempts have been made to make progress in the humanitarian conditions and overall development of the Somali people. However, we have lacked information that would help steer us in the right direction.

This series of reports brings new, credible promises for the Somali people. Using the information offered, government officials will be able to better address inequalities – between men and women, the wealthy and the underprivileged or vulnerable members of the society. Somali authorities will now be able to design and implement articulate, targeted and inclusive pro-poor policies and programmes. It will also enable development and humanitarian actors to plan, implement, and monitor activities in an effort to direct aid to areas with the greatest need. We have a window of opportunity, and collective responsibility, to improve the lives and realities of individuals, families and communities.

In addition to the invaluable data about the Somali people at a critical juncture of their history, PESS leaves another important legacy—a strengthened statistical system and an increased capacity to conduct large-scale surveys and population counts. It is thus a stepping stone towards a future population and housing census, which will help put in practice the "one person-one vote" principle that underlies every stable democracy.

It is my hope that Somali authorities and their partners will acknowledge that behind each number presented in the reports is a human face and story. Let us ensure we listen and do justice to these unheard voices.

Nikolai Botev (Signed)
UNFPA Representative

ACKNOWLEDGEMENTS

The efforts towards the successful production of the Analytical Thematic Reports 2016, from planning to data analysis and actualisation of the thematic reports, have been vigorous. This initiative has involved a number of organizations and individuals, both in the UN fraternity and donor organizations. On behalf of the UN, we would like to express our heartfelt gratitude to those involved.

First and foremost, we would like to acknowledge the Somali authorities for steering the process in such a professional manner and creating consensus at every stage. Particularly, we extend our gratitude to the in-country team, including Ahmed Elmi Muhumad (former Director General, Statistics), Nur Ahmed Weheliye (Post-PESS Coordinator), Hashim Sheikh Abdinoor (Technical Support), Mohamed Abdinur Mohamed (Technical Support) and Hussein Elmi Gure (Technical Support).

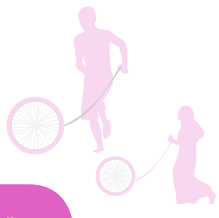
Likewise, we would like to single out Leo Thomas, Results Advisor (DfID), and his core team, Hannah Chira and Maimuna Abdalla, for their technical support and consistent guidance. We remain grateful for the generous contribution from UK DfID, which helped turn the dream of the Somalis into reality, in terms of capacity building for Somalis in gathering and analysing information, writing of the analytical thematic reports and ensuring the delivery of the information to the various users. We would also like to acknowledge the valuable inputs and advice from Vincent Kutai, Programme Manager, Water, Sanitation and Hygiene (WASH) and Statistical Support from the Swedish Embassy, particularly through the input of Jean-Pierre Ntezimana and the team from Statistics Sweden.

It would not have been possible to bring these reports through to completion without the guidance from Nikolai Botev (Representative, UNFPA Somalia), as well as the steady support of Grace Kyeyune (Deputy Country Representative, UNFPA Somalia). Special efforts made by the Population and Development (P&D) Manager, Mariam Alwi, for her devotion and patience in steering this work, are highly appreciated.

The technical team involved did a commendable job in their professional capacities, and their passion, commitment and dedication has been much appreciated. Team members include: Felix Mulama (Consultant Technical Lead), Richard Ng'etich (Technical Lead), Sammy Oyombe (Statistician), Zena Lyaga (Consultant Demographer), Susan Maina (Consultant Demographer), Umikaltuma Mohamed (Geographical Information System (GIS) Consultant), Samwel Andati (Data Management Assistant), John Okongo (Programme Associate) and Jaafar Adon (Programme Assistant). The team also benefitted from the technical contribution of Per Schoning (Norway Statistics).

We also express our deep gratitude to the editorial team: Namita Mediratta (Editorial Consultant), who copy-edited the reports, and ensured that the language is in a readable format for the various users, Osman Hussein Warsame (P&D Consultant) who reviewed the applicability of the information in the context of the country, and Emily Denness (Midwifery Specialist), who provided kind support and time in editing and proofreading the reports. We would like to thank Scadden Orina (Graphic Designer), who created the info graphics and illustrations used both for print and web.

Our gratitude also extends to the UNFPA internal reviewers for providing the first in-depth scrutiny of the reports. They include: Bakhtior Kadirov (Head, Garowe sub-office), Ezekiel Kutto (Monitoring and Evaluation Analyst), Salada Robleh (Head, Mogadishu sub-office), Pilirani Semu-Banda (Communications Specialist), Salad H Dualle (National Programme Specialist), Anas Jabir Babikir (Head, Hargeisa sub-office) and Ahmed Mihile (P&D Specialist).



We are also privileged and grateful to have benefitted from the extensive knowledge and expertise of the external reviewers: Jeremiah Banda (Former Chief, Demographic and Social Statistics Branch, United Nations Statistics Division (UNSD) in New York and former PESS Team Leader, UNFPA Somalia), Werner Haug (Former Technical Director, Regional Office for Eastern Europe and Central Asia UNFPA) and Eric Jager (Former PESS Demographer UNFPA Somalia). We also thank the UN family, particularly United Nations Development Programme (UNDP), United Nations Children's Emergency Fund (UNICEF), World Food Programme (WFP), Food and Agricultural Organization (FAO), United Nations High Commission for Refugees (UNHCR), International Organization for Migration (IOM) and United Nations Human Settlements Programme (UN-Habitat), and the donor community—in particular UK DfID and the Swedish Embassy—for their continued support.

These analytical reports would not have been a success without the contribution of several individuals and institutions, many of whom are acknowledged in the initial PESS 2014 report. We remain greatly indebted to each one of them.

EXECUTIVE SUMMARY

This report presents findings on the housing structures, sources of energy for lighting and cooking and ownership of assets/equipment by the Somalis from the Somali Population Estimation Survey (PESS) 2014. Analysis is disaggregated by sex, education of the household head, wealth quintile and type of residence, methods of human waste disposal, information on type of floor material, wall covering and roofing material used by households and by region.

The most common type of flooring material used by households across the population is earth at 52.8 percent, followed by cement at 35.7 percent. Households in the wealthiest quintile could afford cement for flooring with much ease compared to households from the lower wealth quintiles. Most households used iron sheets for roofing, followed by palm leaf. Some households also used concrete for roofing. The types of wall material for housing includes bricks/blocks, grass, iron sheets, wood and mud with wood.

Sources of energy for lighting are charcoal, torch, electricity, kerosene, solar energy among others. A majority of the richest households use electricity for lighting while households in the poorest quintile use torch as the main source of lighting. There is still a challenge of access to electricity by most Somalis' households. Solar energy is the least used. Charcoal and firewood is reported to be the most common source of energy for cooking by Somali households. Charcoal and firewood are easily available for most households, with the other forms of energy for cooking having minimal usage across the population. There is variation in main source of energy for cooking by sex, with households headed by males reporting slightly higher use of charcoal than firewood at 57.4 percent and 42.2 percent respectively. Households with younger household heads (10 -19 years) had the largest proportion of firewood use in cooking, with minimum variation across the other age groups of household heads. The level of education of the household head did not significantly influence the variations between charcoal, firewood and electricity as a source of energy for lighting and cooking.

Most households across the population use pit-latrines for human waste disposal, amounting to more than half of the households at 54.7 percent. Flush toilets and bushes were also ways in which households commonly dispose off human waste (at 21.5 and 22.7 percent respectively).

Land ownership is at 43.2 percent. Among households owning land, they use it for commercial purposes (13.2 percent), farming (49 percent) and livestock keeping (15.2 percent). Some of the land was also vacant at the time of the survey (22.7 percent). Most households owned a radio (88.6 percent). TV set ownership was also among the assets that were frequently reported (44 percent).

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1.

INTRODUCTION

This chapter gives the background and outlines the objectives for the PESS 2014 survey.

1 INTRODUCTION

1.1 History of census taking

The first population and housing census for Somalia was conducted in 1975, which published limited results; the findings from a second population census conducted in 1986/87 were not published officially.

In the absence of census figures efforts have been made over the years to estimate the size, age and sex distribution of the population, in addition to population projections. The most notable attempt was made by K.E. Vaidyanathan in his 1997 consultancy report '*Population Statistics of Somalia*', and the estimates have been generally accepted as the most reliable population data available. His report provided projected population for 2005 of just over seven million. Development agencies have made several attempts to compile reliable data on the size and distribution of the population and social and economic characteristics. Such efforts however, did not receive sufficient support and recognition.

In 2005, UNDP prepared a report entitled '*Population Estimates and Projection for Somalia, 2005-2010 (draft)*', which shows the estimated population for each year by sex and region. The estimates were based on a number of sources: information available from the 1975 census; a UNDP report on Population Statistics for Somalia, 1997; estimates made by UNHCR of the number of Somali refugees; and the various settlement surveys conducted by UNDP. These estimates were examined by a group of senior Somali professionals in the pre-war Ministry of National Planning, as well as members of the UN Thematic Group on Statistics. Both groups concurred with the population estimates presented for 2005. Their best estimate was a projection of population of just over 7.5 million in mid-2005. They projected the population based on an annual population growth rate of 3.0 percent, estimating a population of 8.4 million in mid-2010. They also estimated the distribution of the population by sex and region. These estimates were intended purely for planning purposes, as they were not based on the results of a full census. Currently, the official population estimates in use are derived from the '*Population Estimation Survey, 2014*' supported by UNFPA.

1.2 Rationale for conducting the Population Estimation Survey

For more than three decades, Somalis and their humanitarian and development partners faced immense challenges in designing and implementing programmes because of the lack or paucity of basic demographic data. As earlier stated, not all of the census data was released or published. It is worth noting that the available limited data from the census is now obsolete due to the numerous changes that have taken place in the political, demographic and socio-economic spheres. Development agencies made numerous attempts to produce reliable population figures pertaining to size, distribution and associated socio-economic characteristics. However, such efforts were limited to producing sector specific datasets.

1.3 Filling the data gap

The absence or scarcity of information on the Somali population challenged planning and programming at all levels for years. To address this situation, Somali authorities conducted a Population Estimation Survey in 2013/2014, with support from the donor and international community. The survey was aimed at providing population and socio-economic information to policymakers; and political, economic and social actors to develop evidence-based strategies for planning and decision-making.

The PESS is the first extensive large-scale household sample survey to be carried out among the Somali population in more than three decades. The survey provided reliable and comprehensive population estimates, demographic, and socio-economic characteristics for Somalis, encompassing

the demarcated 1986 pre-war regions and districts.

The Population Estimation Survey was designed to provide accurate and reliable estimates of the size and distribution of the Somali population, and its characteristics, including: population size; spatial distribution; and socio-economic attributes. In addition, the PESS serves as a first milestone towards conducting a full and comprehensive population and housing census in the future.

The main objectives of the Population Estimation Survey were:

- To establish reliable estimates of the population size by age and sex living in urban areas, camps for Internally Displaced Persons, rural areas, and of nomadic communities.
- To empower and develop the capacity and foundation of government institutions and personnel responsible for data collection, analysis and dissemination.
- To provide estimates of the number of households, their geographic distribution and structure, along with related demographic and socio-economic data for the population.
- To provide sampling frames for surveys and a potential future population census.
- To provide baseline data for socio-economic planning, policy development, facilitating the evaluation of effectiveness, outcomes and impact of development interventions.

1.4 Housing and household assets

Housing conditions and households' assets are typically indicators of well-being and wealth. This volume presents information on three different types of household assets: Basic communication tools available in households including radios, televisions and computers. The survey provides also information on the sources of energy, which households use for lighting and cooking. Included is also information on household access to basic utilities, types of materials used for flooring, roofing and walls, and modes of human waste disposal. Information on housing characteristics and land ownership is only available for households in urban and rural areas and IDPs. It was NOT collected for nomadic households.

1.5 Computation of the Wealth Index

The PESS did not collect information on economic measures of wealth, such as income or expenditure. The wealth index takes into account a number of indicators that are thought to be correlated with a household's economic status (Rutstein and Johnson, 2004). The composite wealth index is thought to represent a more permanent welfare status than income or consumption in terms of measuring economic status and allows for the identification of problems particular to the poor, such as unequal access to health care (Rutstein and Johnson, 2004). Component indicators include, for example, possession of assets such as a television, radio, telephone or refrigerator, and variables related to the dwelling, such as the type of flooring, water supply and sanitation facilities.

The PESS included information regarding the ownership of durable goods, housing characteristic and access to services. Principal Component Analysis (PCA) was applied to create a wealth index based on the data. Household variables were recorded into dichotomous variables, distinguishing between households that own the particular asset, and ones that do not own the asset. Hence all variables take on a value of zero or one.

The PCA is a multivariate statistical technique used to reduce the number of variables without losing too much information in the process. The PCA technique achieves this by creating minimal variables which explain most of the variation. The new variables created are linear combinations of the original variables. The new variables will account for as much of the variation as possible in the original data.

The analyses is disaggregated by sex and age of the head of household, the highest level of education attained by the head of household, type of residence, and regions where they live. The wealth index was NOT calculated for nomadic households as no information on housing and household assets of the nomadic population was collected.

2.

SURVEY METHODOLOGY

The methodology for the Population Estimation Survey was developed through an all-inclusive and consultative process, led by Somali experts, supported by the UNFPA's Technical Unit. For a more detailed description of the methodology, see the Analytical report Volume 1. This chapter provides a synopsis of the PESS methodology and its application.

2 SURVEY METHODOLOGY

2.1 Sampling frames

A sampling frame is a set of source materials about a target population from which a sample is selected. The sampling frames for PESS comprised defined clusters of enumeration areas for the urban areas, settlements for rural areas, camps for IDPs and water points for nomadic areas. These were the area Primary Sampling Units.

2.1.1 Urban sampling frame

The sampling frame for urban areas were Enumeration Areas with households ranging between 50 and 149. The survey used validated maps and satellite images to identify administrative boundaries. In order to enhance the quality of the urban frame, satellite images were validated in the field. The urban frame had 6,750 PSUs, out of which 868 were selected.

2.1.2 Rural sampling frame

Settlements with 50 to 149 households in rural settings formed the PSUs for the rural sample. Larger settlements were split into segments of approximately 50-149 households. The rural frame consisted of 6,519 PSUs out of which 1,104 were selected.

2.1.3 IDPs sampling frame

The sampling frame for IDPs consisted of settlements or camps. UNHCR provided information on the number of households in camps. The frame included 107 IDP camps of which a sample of 28 was selected.

2.1.4 Water points' frame

The frame for water points was obtained from the 2005/2006 UNDP Community Census and was updated using the list of water points prepared by the UN Food and Agriculture Organization/ Somalia Water and Land Information Management (FAO/SWALIM). The frame comprised of 5,332 water points, from which a 14 percent (735) sample was drawn.

2.2 Stratification

Stratification is a method of sampling that involves the classification of a population into homogenous groups. Stratification, if well constituted, facilitates the production of reliable estimates of different groups/strata.

Sample selection: The overall samples selected in the 18 regions were proportionate to the size of the strata (number of enumeration areas) vis-a-vis the total observations listed in the frame. For the urban enumeration areas, and rural settlements, the selection within the strata was based on probability proportional to size (PPS) taking into account the measures of size. The selection of water points was based on Simple Random Sampling (SRS).

The 1986 pre-war geographic regions have been used for the analyses of data in this series. It is important to note that currently there is a Federal government, comprising of Puntland, South West, Juba-land and Galmudug states. The Federal Government is in the process of forming new states for Hiraan and Middle Shabelle regions. Somaliland declared its unilateral independence in May 1991 and is yet to be recognized by the international community. As a result of these developments, regions and districts have changed. It is important to note that the newly established regions have no link to the pre-war regional and district boundaries used in this analysis.

2.2.1 Sample allocation to regions and sub-strata

The total number of PSUs in the sample frames was 18,708. The sample was initially fixed at 2,535 PSUs. However, sample sizes were re-adjusted to boost representation for regions that had few PSUs in the initial allocation. Consequently, the overall sample size was 2,735 PSUs or 14.6 percent.

2.3 Calculation of sampling errors

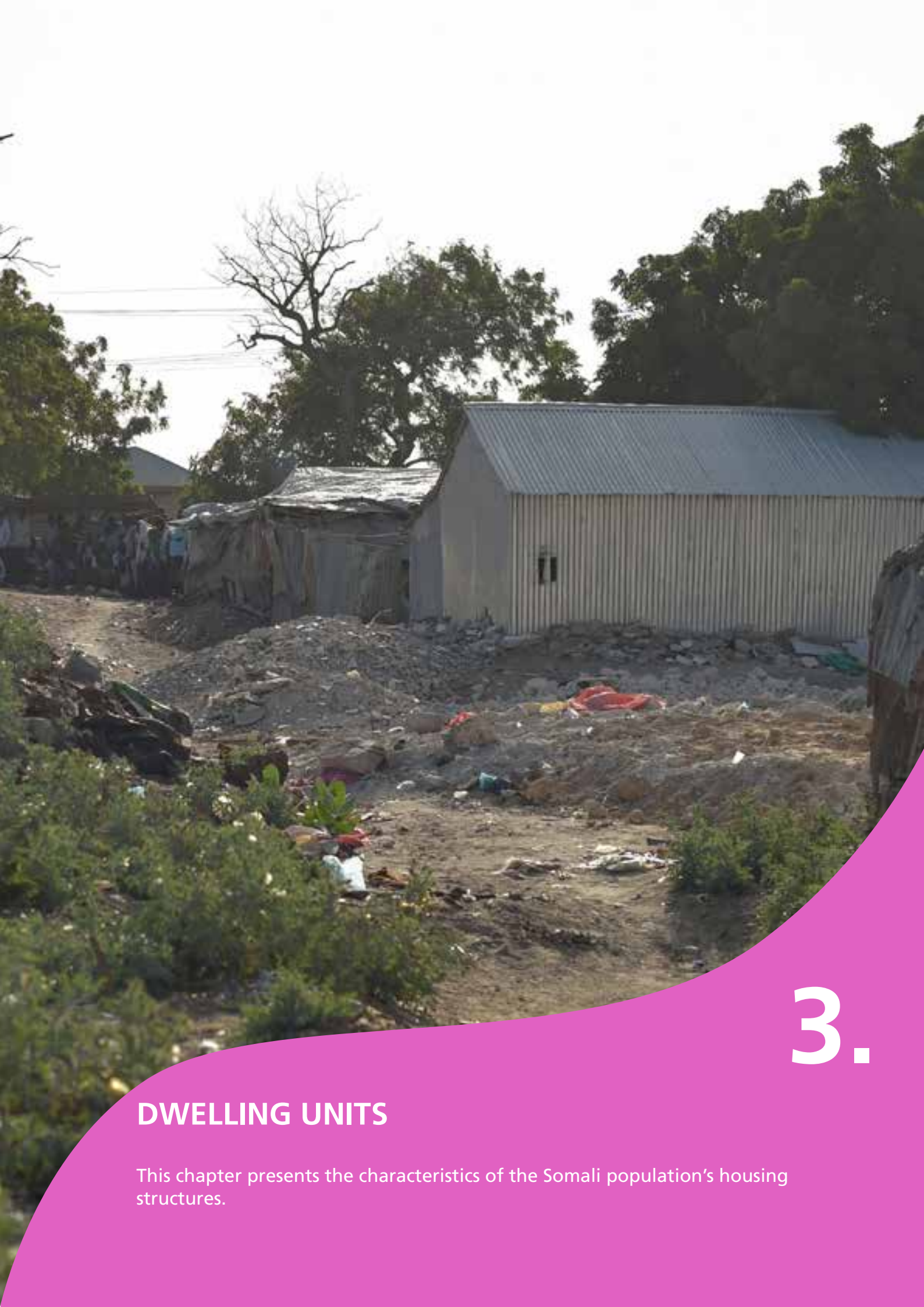
Sampling errors for the selected key variables were calculated using WesVar software. WesVar uses the replication method of 'Jack-knife technique'. Standard errors, confidence interval and coefficient of variations were produced (for a more detailed description, see Volume 1).

2.4 Fieldwork

The survey was conducted for the sedentary population (urban, rural and IDPs) between November and December 2013. The nomadic population was enumerated during the dry season in February and March 2014.

2.5 Estimation

The sample results were extrapolated to achieve the estimates for the total population by multiplying the sample values by their respective weights (the inverse of the probability of selection).



3.

DWELLING UNITS

This chapter presents the characteristics of the Somali population's housing structures.

3 DWELLING UNITS

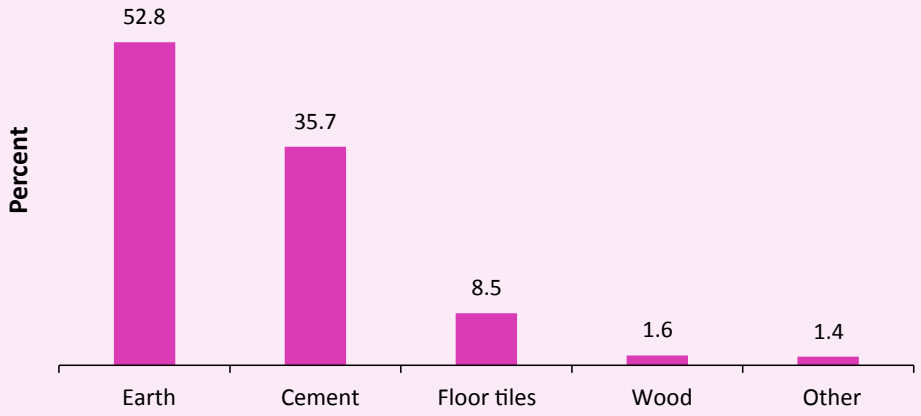
A house provides shelter, privacy and safety, and protects the physical and mental health of its occupants. The design of houses, their construction and maintenance, their physical characteristics and the presence or absence of safety devices has effects on injury, illness, and mental health of its inhabitants. Housing conditions also influence the ability of people to participate fully in their community.

This chapter assesses materials used by households for the construction of floors, roofs and walls. The information provides some indication of the durability of houses, communities' housing needs and the availability of construction materials in the country.

3.1 Flooring materials

The most commonly used material for flooring is earth, used in 52.8 percent of households, followed by cement, used in 35.7 percent of households. Floor tiles are used for flooring in 8.5 percent of households and wood is used in 1.6 percent of households (see Figure 1).

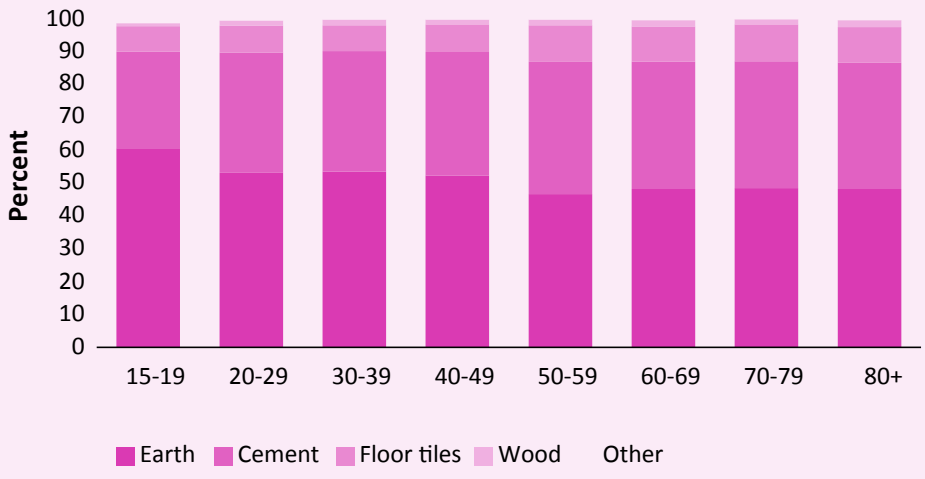
Figure 1: Type of materials used for flooring



3.1.1 Flooring materials in households by age of the household head

Around 60 percent of households with heads aged between 10 and 19 years use earth for flooring, a higher share compared to the other age groups (see Figure 2). The use of earth is lowest among households headed by persons between 50 and 59 years (46.4 percent). The least common materials used for flooring are wood and tiles. Tiles are used more in households with older household heads, between 50 and 59 years (11.1 percent of households) and between 70 and 79 years (11.2 percent of households).

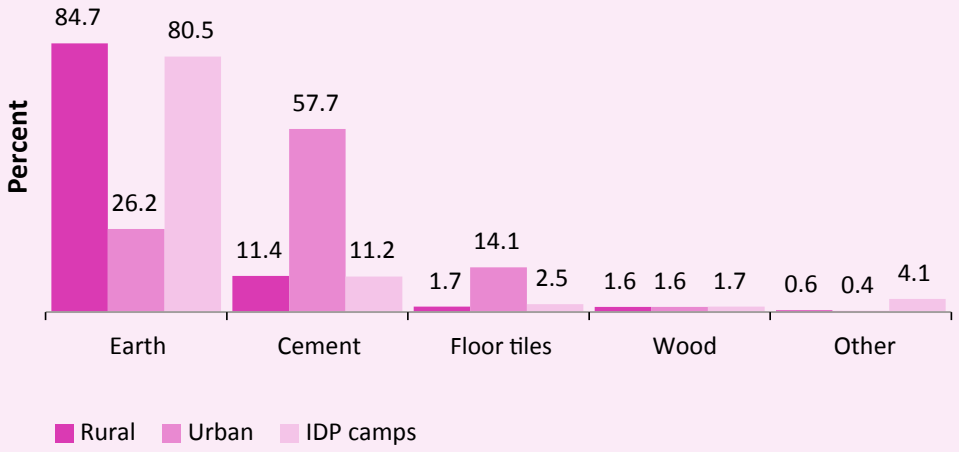
Figure 2: Flooring material by age of the household head



3.1.2 Flooring materials in households by type of residence

There is a wide variation in flooring materials being used among households in IDP camps, rural settings and urban areas. The predominant material used for flooring by IDPs' and rural households is earth (at 80.5 percent and 84.7 percent respectively). In urban areas around 57.7 percent of households are using cement and another 14.1 percent are using floor tiles (see Figure 3).

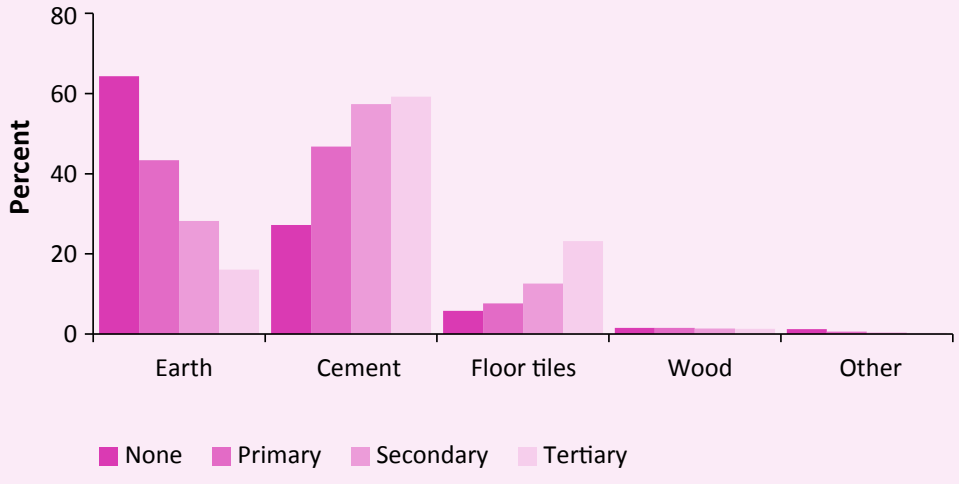
Figure 3: Flooring materials by type of residence



3.1.3 Flooring materials in households by educational level of the household head

Cement becomes the most popular flooring material as the level of education of the household heads increases (ranging from 46.8 percent for household heads with primary education to 59.2 percent of household heads with tertiary education). Household heads with no formal education tend to use earth as a flooring material at 64.3 percent. Wood is the least common material used by household heads of all educational levels (see Figure 4).

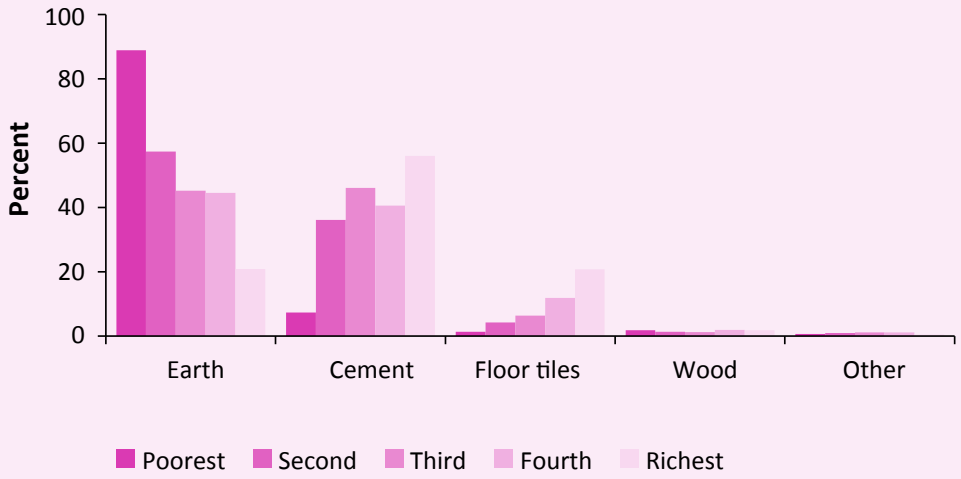
Figure 4: Flooring materials by educational level of the household head



3.1.4 Flooring materials used in households by wealth quintile

Earth is by far the most widely used type of flooring in poor households, at 88.9 percent. More than half of the wealthiest households (56 percent) are using cement for flooring (see Figure 5).

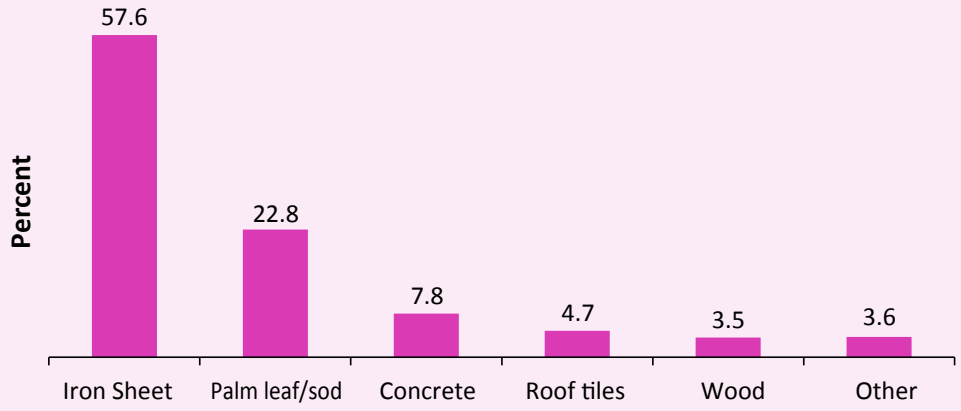
Figure 5: Flooring materials used in households by wealth quintile



3.2 Roofing materials

Iron sheets are the most common material used for roofing, reported to be used in more than half of all households (57.6 percent). Around 23 percent of households use palm leaves or sod (see Glossary) for roofing, 7.8 percent use concrete, 4.7 percent use roof tiles and 3.5 percent use wood (Figure 6).

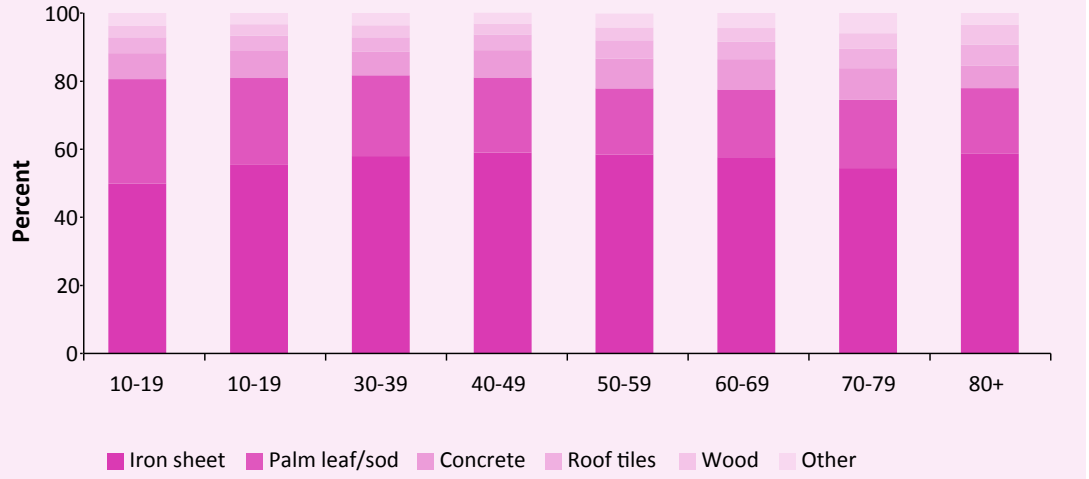
Figure 6: Materials used for roofing



3.2.1 Roofing materials by age of the household head

Household heads of all age groups use iron sheets for roofing more than other options (see Figure 7). Around half of the households headed by 10-19 year olds, and 59 percent headed by 40-49 year olds use iron sheets. Palm leaves or sod is the second most common type of roofing, used by almost one-third of households (30.7 percent) headed by 10-19 year olds.

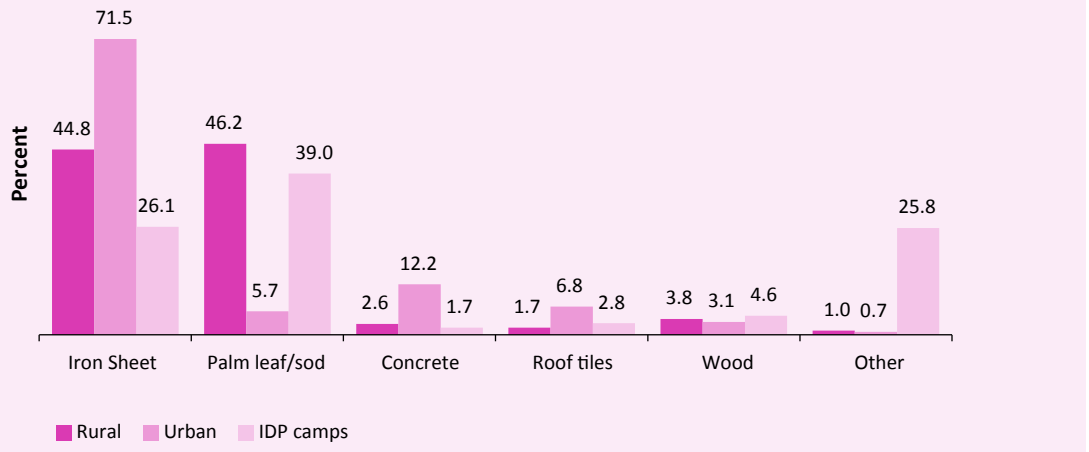
Figure 7: Roofing materials by age of the household head



3.2.2 Roofing materials by type of residence

Iron sheets are used most widely for roofing in urban households (71.5 percent), followed by rural households (44.8 percent). Only 26 percent of households in IDP camps use iron sheets. Among the rural and IDP households, palm leaves or sod are the most common roofing material, used at 46.2 percent and 39 percent respectively. Slightly more than a quarter of IDP households use any materials they can find, such as plastics, shrubs, sticks and canvas sheets to make their roofs, which highlights their plight, and use of makeshift houses. One out of ten urban households (12.2 percent), 2.6 percent of rural households and 1.7 percent of households in IDP Camps use concrete for making roofs (Figure 8).

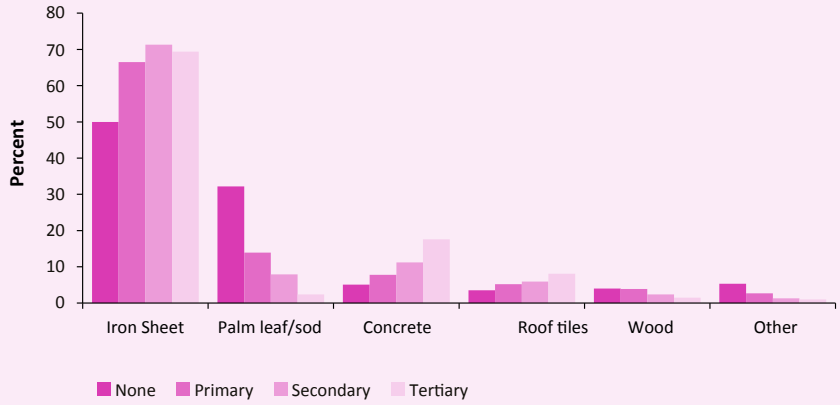
Figure 8: Roofing materials by type of residence



3.2.3 Roofing materials used by educational level of the household head

Iron sheets are used as the predominant roofing material among households heads of all levels of education (see Figure 9). For instance, half of the households where heads have no formal education use iron sheets, compared to those with secondary, primary and tertiary education at 71.3, 66.5 and 69.4 percent respectively.

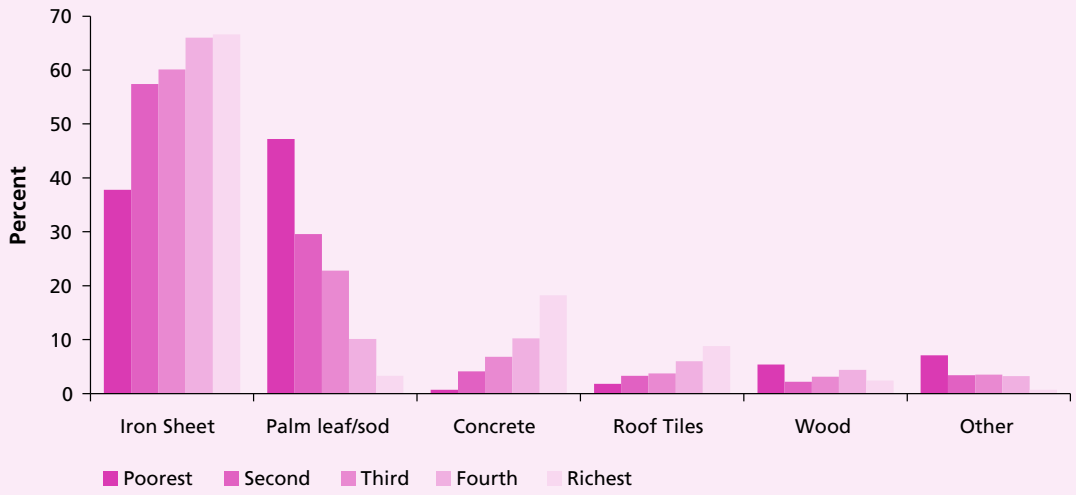
Figure 9: Roofing materials used by educational level of the household head



3.2.4 Roofing materials used by wealth quintile

Figure 10 shows that palm leaf/sod is the most common roofing material for households in the lowest wealth quintile, followed by iron sheets. Among the richest households, it is common to use concrete and iron sheets for roofing.

Figure 10: Roofing materials used by wealth quintile



3.3 Materials used for constructing walls by households

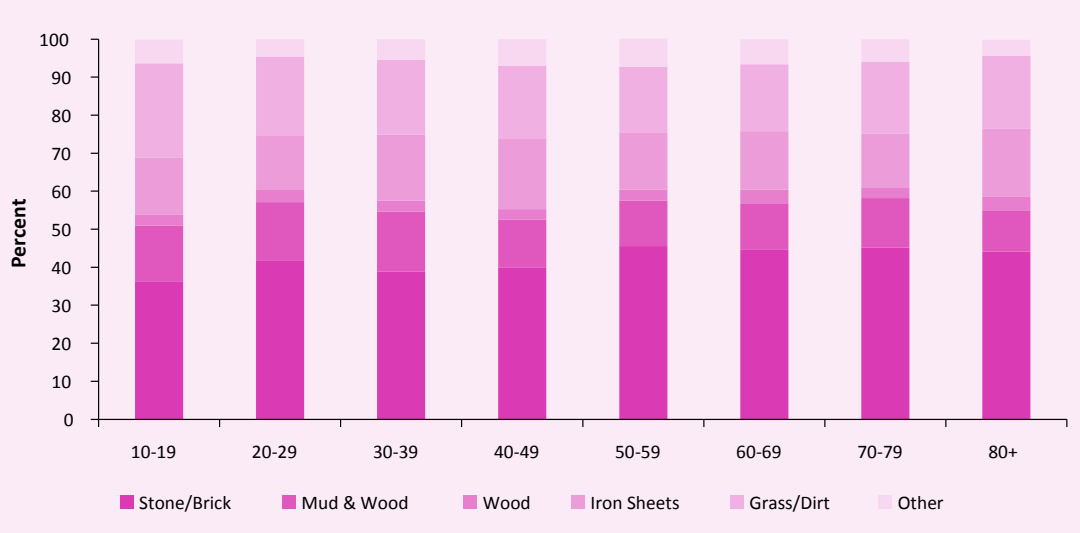
Durable or permanent materials, such as stones, bricks and blocks, are most widely used to build walls. Around 41 percent of households have walls built of these materials (see Figure 11).

Figure 11: Materials used for constructing walls by households

3.3.1 Materials used for constructing walls by age of household head

According to Figure 12, around 36 percent of households with heads between 10 and 19 years of age, and 45.6 percent of households with heads between 50 and 59 years, use stones or bricks for their walls.

Figure 12: Materials used for constructing walls by age of household head

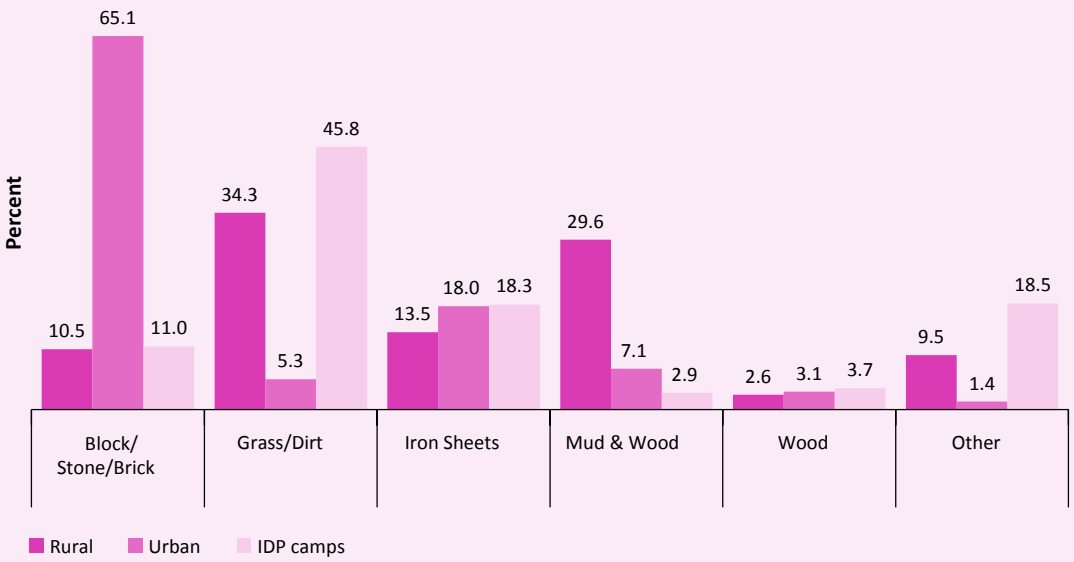


3.3.2 Materials used for constructing walls by type of residence

Permanent walling (stone and brick) is largely used in urban houses, where 65.1 percent of households use this material. The use of grass and dirt, which can be indicative of more temporary houses, are more prevalent in rural areas and IDP camps (used by 34.3 percent and 45.8 percent of households respectively). Only 10.5 percent and 11.0 percent of households in rural areas and IDP camps respectively use durable materials for constructing walls.

Mud walls are largely found in rural settings, reportedly used by 29.6 percent of households, compared to 7.1 percent of households in urban areas, and 2.9 percent in IDP camps (Figure 13).

Figure 13: Materials used for constructing walls by type of residence



3.3.3 Materials used for constructing walls by educational level of the household head

The level of education attained by the head of household has an influence on the type of wall materials used. The use of stones, bricks or blocks is substantially higher among households where the head has a higher level education than among those where the head has no education.

Mud and wood or grass and dirt walls are in greater use among households headed by persons with low levels of education. Around 16 percent of household heads with no education use mud and wood to build walls, compared to 5.9 percent of households whose heads have tertiary education. The use of wooden walls ranges from 1.8 percent of households where heads have no education to 3.3 percent among households with heads who have attained tertiary levels of education. The use of iron sheet walls ranges from 12.6 percent among households where heads have tertiary education, to 17.5 percent among households where heads have no education (see Figure 14).

Figure 14: Materials used for constructing walls by educational level of household head

3.3.4 Materials used for constructing walls by wealth quintile

The house walls of more affluent Somalis are built of stones, bricks or blocks. In the richest wealth quintile, 70.7 percent of the households have used stone, brick or block walls, followed by less than half the households in the fourth quintile (49.8 percent). Households in the middle and second quintiles have 47.1 percent and 32.5 percent of walls made of stones, bricks or blocks respectively (see Figure 15).

Figure 15: Materials used for constructing walls by wealth quintile

4.

MAIN SOURCES OF ENERGY FOR COOKING AND LIGHTING

This chapter reviews the main sources of energy that households use for cooking and lighting.

4 MAIN SOURCES OF ENERGY FOR COOKING AND LIGHITING

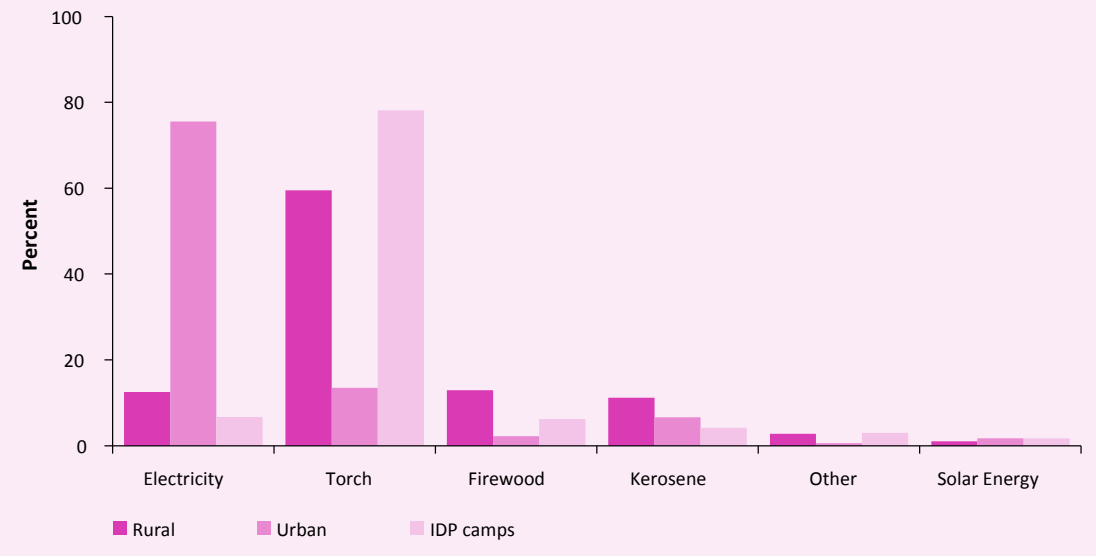
4.1 Sources of energy for lighting

The main sources of energy for lighting across the households are electricity and torches, at 47.0 and 35.9 percent respectively. Solar energy has the lowest proportions of households utilising it, at 1.4 percent.

4.1.1 Energy sources in use for lighting by type of residence

Urban households mostly use electricity for lighting, at 75.5 percent, compared to 12.5 percent of households in rural settings and 6.7 percent in IDP camps. Around 78 percent of households in IDP camps use torches for lighting. In rural households, 59.5 percent of households use torches for lighting, whereas 13.5 percent of urban households use torches. The least used energy source for lighting is solar energy, in use in 1.4 percent of households (Figure 16).

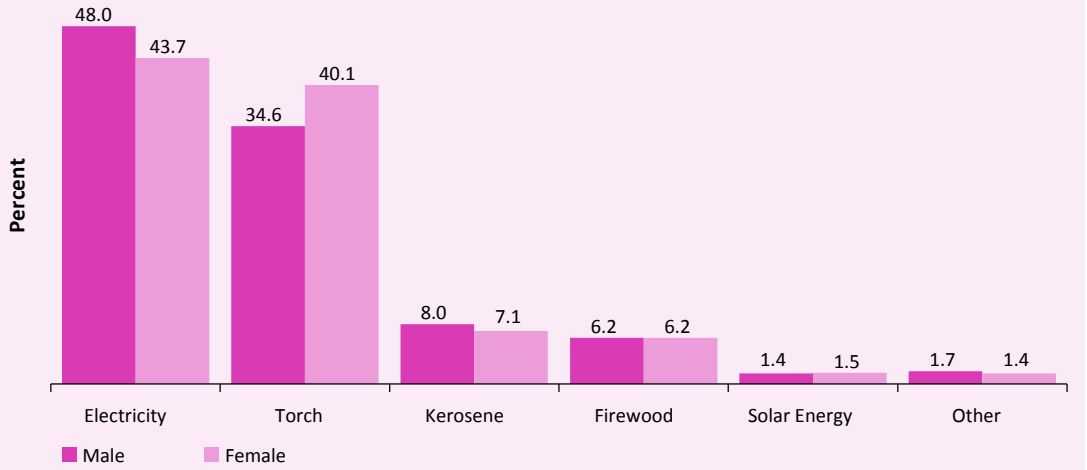
Figure 16: Energy sources in use for lighting by type of residence



4.1.2 Energy sources in use for lighting, by sex of the household head

Figure 17 shows there is no major difference in the pattern of energy sources in use between households headed by males and those headed by females. Forty-eight percent of male-headed households and 43.7 percent of female-headed households use electricity for lighting. Torches are used in 34.6 percent of male-headed households and 40.1 percent of female-headed households. Kerosene is being used in eight percent of male-headed households and 7.1 percent of female-headed households. Equal numbers of households headed by males and females (6.2 percent) use firewood.

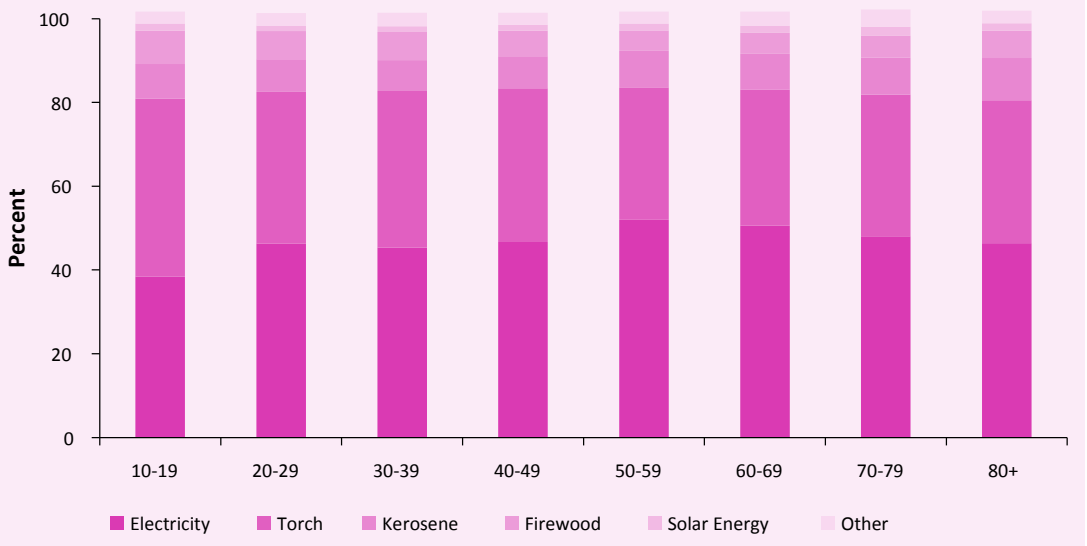
Figure 17: Energy sources used for lighting, by sex of the household head



4.1.3 Energy sources in use for lighting by age of the household head

Households headed by older people more often use electricity than those headed by younger people. Across the different age groups, households headed by persons between 10 and 19 years of age use electricity the least (38.4 percent) as their main source of lighting energy, while those headed by persons between 50 and 59 years use electricity the most (52.0 percent). Households headed by persons between 10 and 19 years use torches the most (42.5 percent) for lighting, compared to households headed by other age groups (Figure 18).

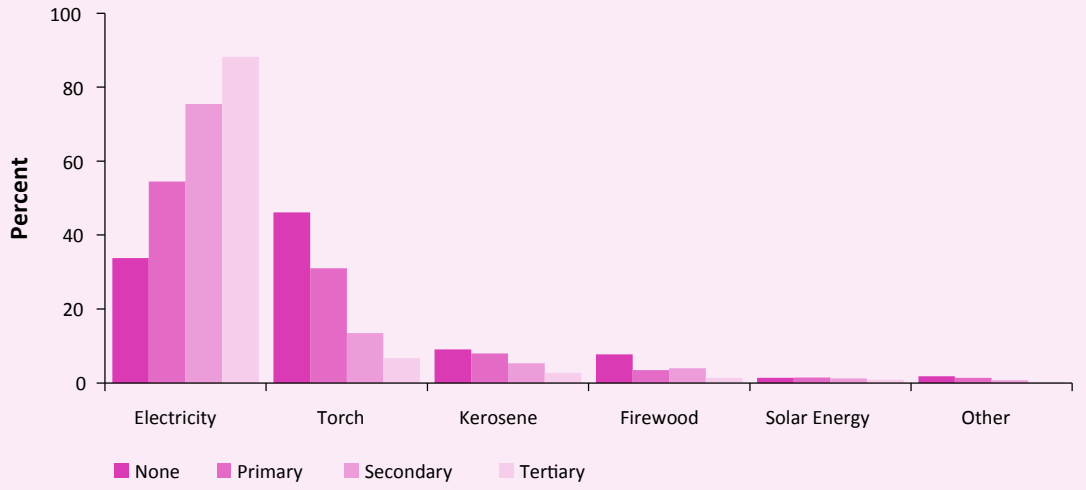
Figure 18: Energy sources in use for lighting, by age of the head of the household



4.1.4 Energy sources in use for lighting by level of education

Households headed by persons with lower levels of education tend to use electricity less than those with higher levels of education do. It is estimated that 33.8 percent of households where heads have no formal education use electricity, compared to more than double, 88.2 percent, of households where heads have attained tertiary level of education (see Figure 19). The torch is the most common type of lighting used by households whose heads have no education (46.1 percent), as well as households where heads have primary education (31 percent).

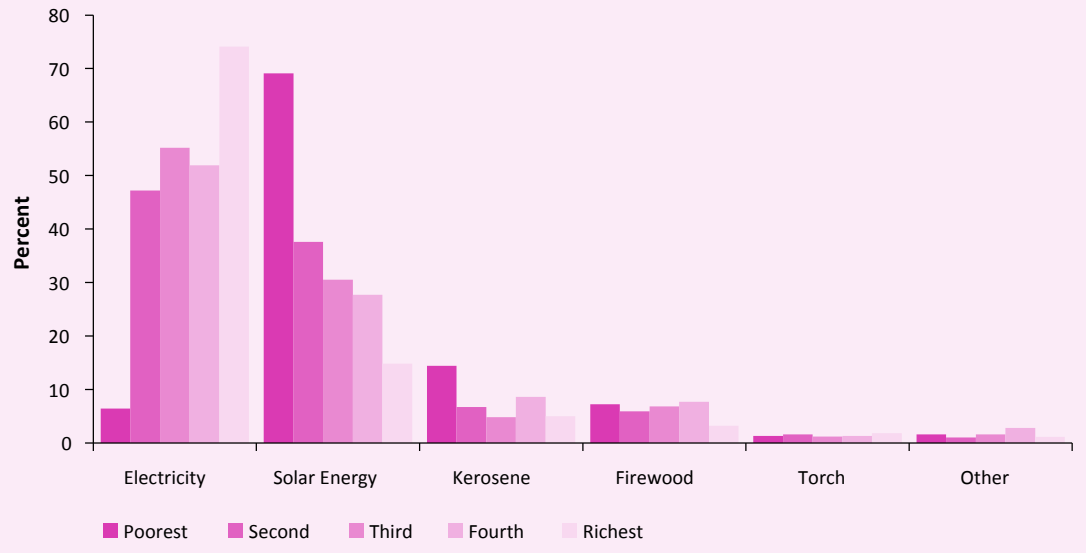
Figure 19: Energy sources in use for lighting by level of education



4.1.5 Energy sources in use for lighting by wealth index

Only 6.4 percent of the poorest households use electricity for lighting, compared to 74.1 percent of the wealthiest households (Figure 20). A large proportion of the poorest households use torches for lighting.

Figure 20: Energy sources in use for lighting by wealth index



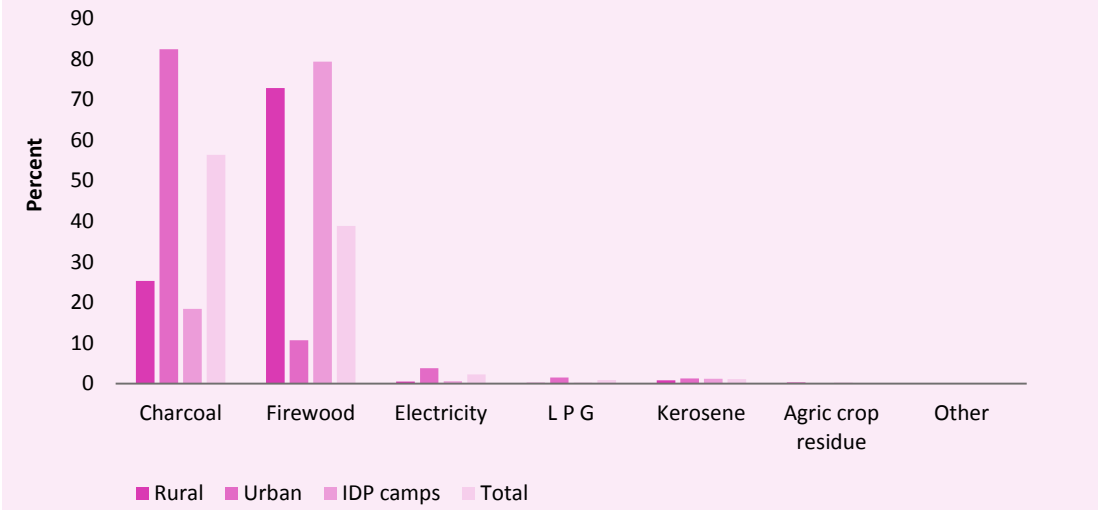
4.2 Main sources of energy for cooking

The main sources of energy used for cooking in most households are firewood and charcoal, used by 56.4 and 38.9 percent households respectively. Liquified Petroleum Gas (LPG) is used in 2.3 percent of the total households.

4.2.1 Energy sources for use in cooking by type of residence

Charcoal is the most frequently used fuel for cooking in urban households (used in 82.5 percent of households), whereas large proportions of the IDP and rural households rely on firewood for cooking (79.4 percent and 72.9 percent respectively). Charcoal is not used as much for cooking by rural and IDP households (used by 25.3 percent and 18.4 percent of households respectively). The findings, as shown in Figure 21, show little variation in the use of electricity for cooking among urban, rural and IDP households.

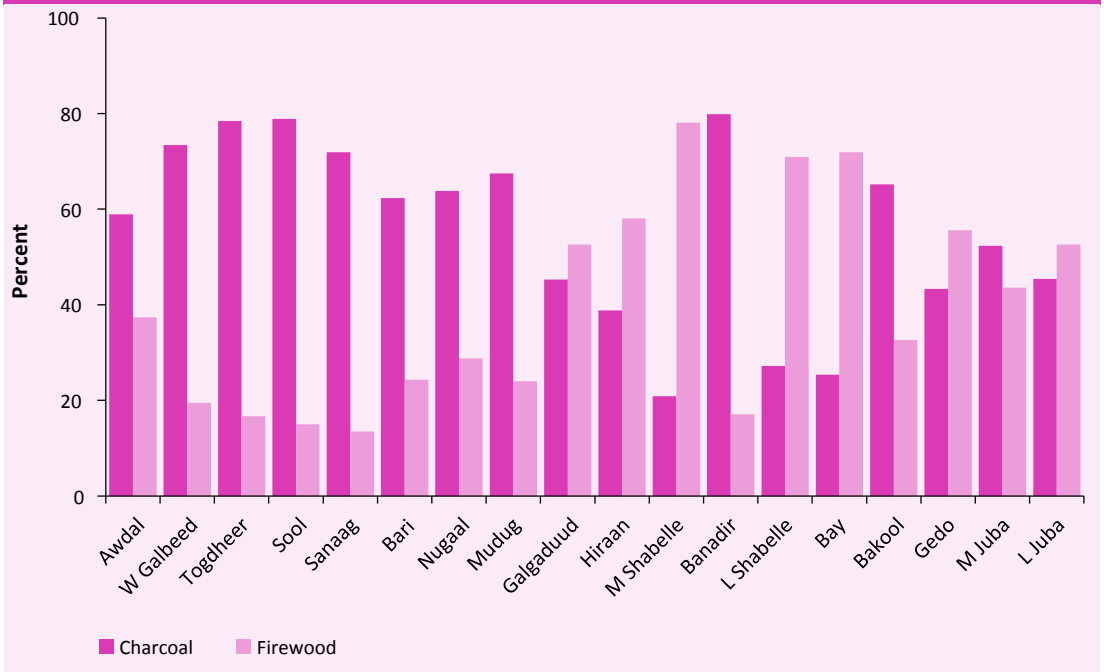
Figure 21: Energy sources in use for cooking by type of residence



4.2.2 Energy sources in use for cooking by region

Across the country, there is a wide variation in the sources of energy used for cooking. The analysis shows that Somali households are relying heavily on non-renewable sources of energy for cooking, which poses a threat to the environment. Figure 22 compares the use of charcoal and firewood for cooking across the regions.

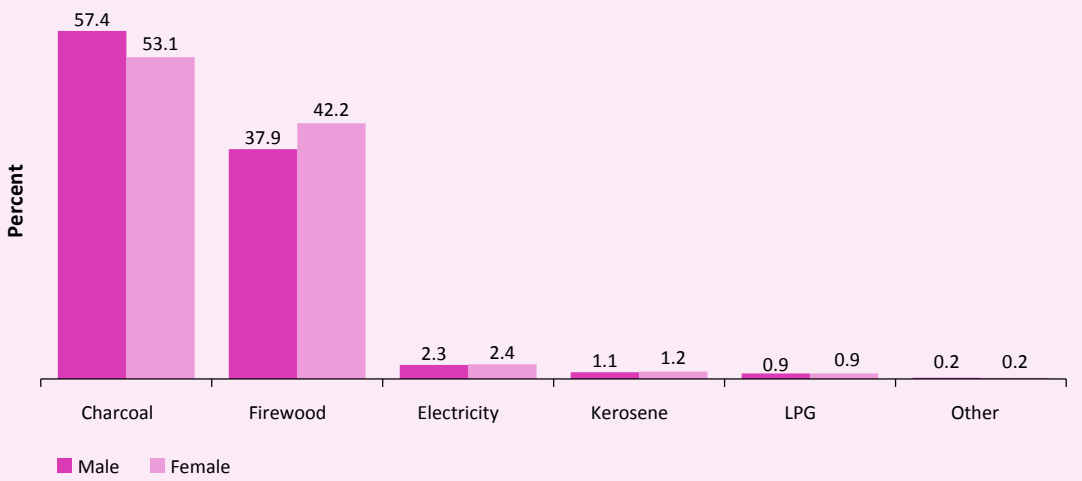
Figure 22: Main energy sources in use for cooking by region



4.2.3 Energy sources in use for cooking by sex of the household head

The energy sources being used for cooking by male and female-headed households are similar. Charcoal is still the most common energy source for both male- and female-headed households (see Figure 23). This could be due to the easy availability of charcoal. Firewood is the second-most common source of energy for cooking.

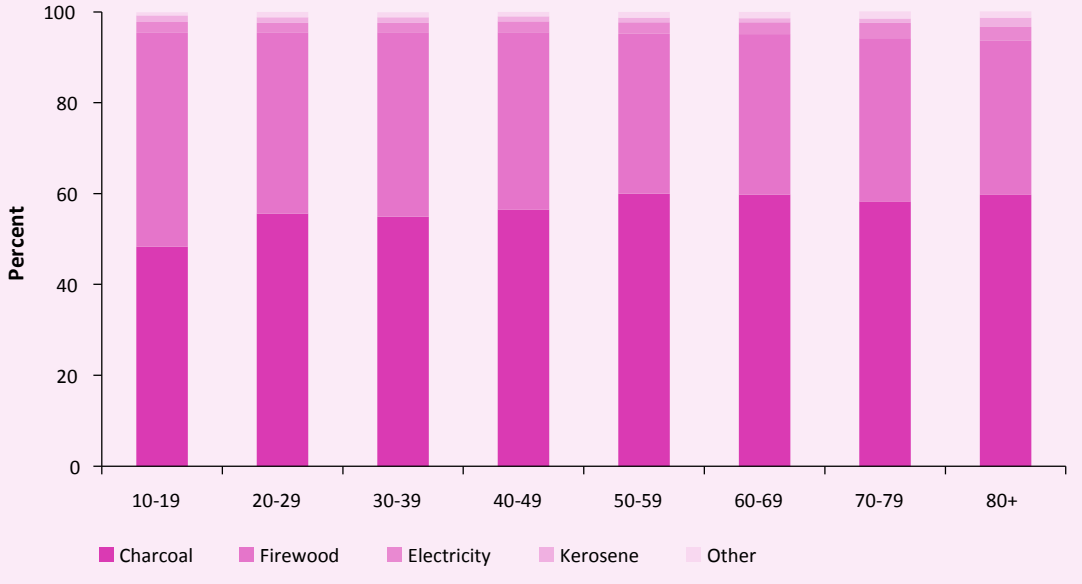
Figure 23: Energy sources in use for cooking by sex of household head



4.2.4 Energy source in use for cooking by age of the head of the household

Charcoal is commonly used among household heads of almost all ages, except for heads of the age group 10-19 years, who use firewood more often. About 60 percent of households with heads aged 50 years and above use charcoal as their main source of energy for cooking (see Figure 24).

Figure 24: Energy sources in use for cooking, by age of household head

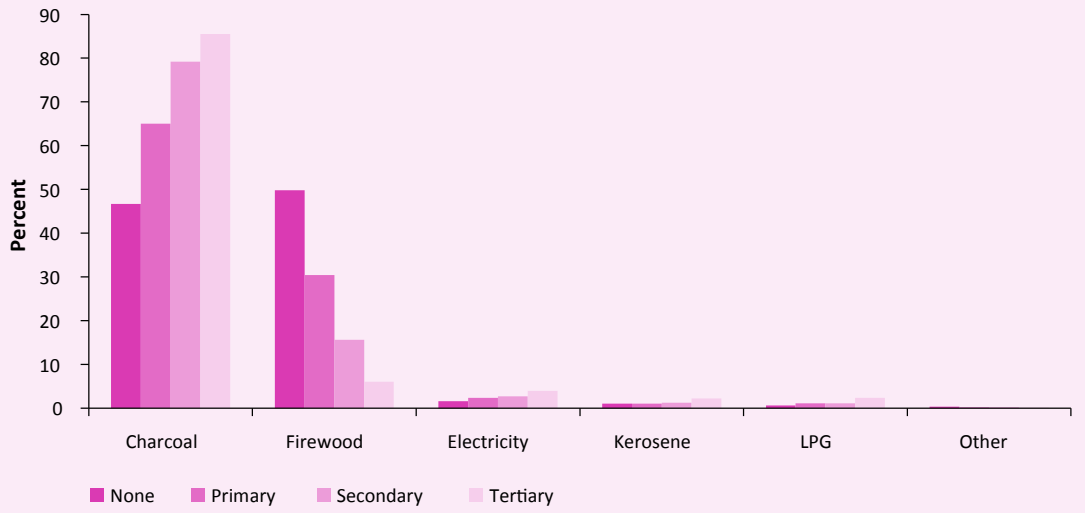


4.2.5 Energy sources in use for cooking, by level of education of the household head

Households headed by those with no formal education use charcoal the least (46.7 percent), compared to households where heads have higher levels of education. Around 86 percent of household heads who have attained tertiary level of education use charcoal for cooking at home.

The opposite situation is observed in the use of firewood: 49.8 percent of households headed by those without formal education use firewood for cooking, compared to six percent of households headed by those with tertiary levels of education (Figure 25).

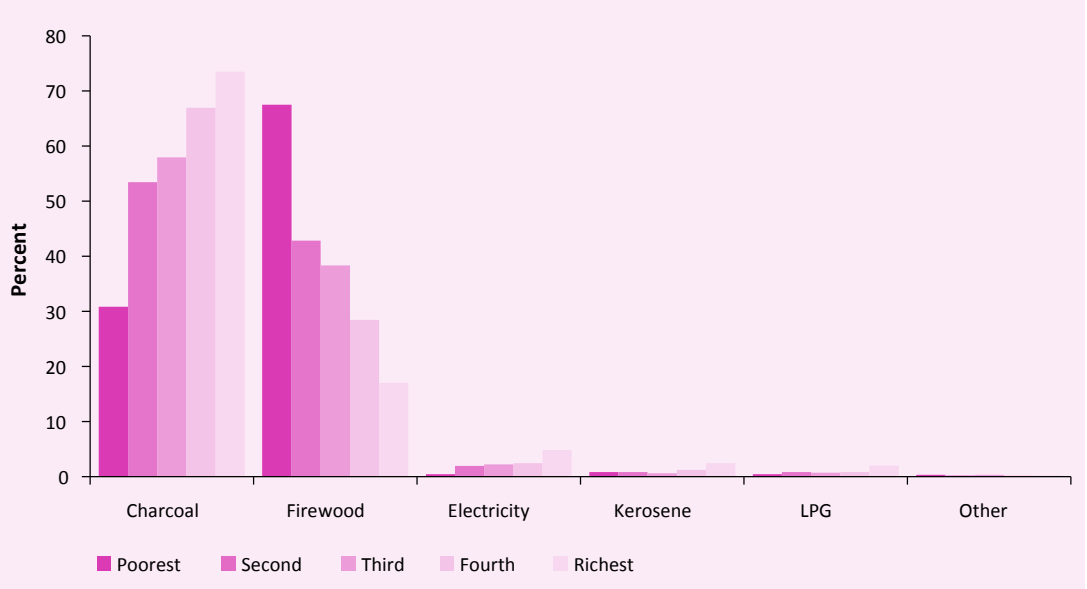
Figure 25: Energy sources used for cooking, by level of education of the head of the household

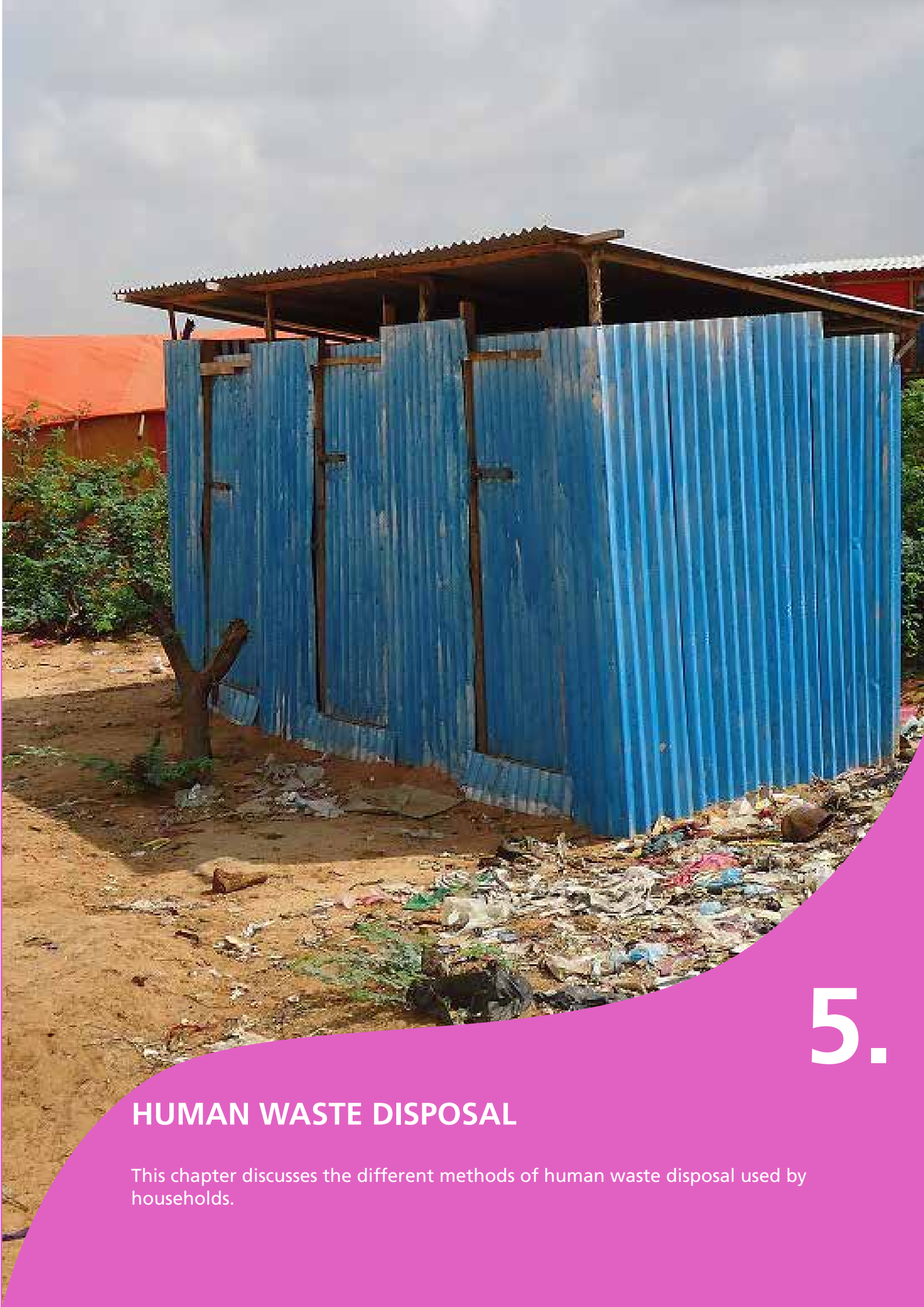


4.2.6 Energy sources in use for cooking, by wealth quintile

Households in all wealth quintiles, except for the poorest households, reportedly use more charcoal than firewood or any other source of energy. Around 68 percent of households in the poorest wealth quintile use firewood for cooking compared to 30.8 percent that use charcoal (Figure 26).

Figure 26: Energy sources in use for cooking by wealth quintile





5.

HUMAN WASTE DISPOSAL

This chapter discusses the different methods of human waste disposal used by households.

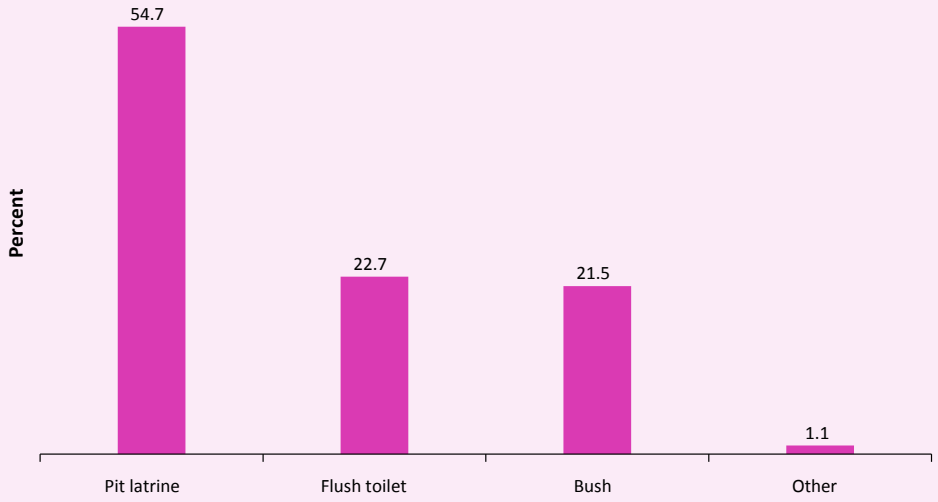
5 HUMAN WASTE DISPOSAL

Proper disposal of human waste is important to avoid pollution of water sources and soil; minimise the possibility of spreading diseases; and maximise the rate of its decomposition. The potential spread of diseases, for example diarrheal diseases, which contribute significantly to deaths among under-fives, is higher where there is improper disposal of human waste.

5.1 Mode of human waste disposal

More than half of Somali's households (54.7 percent) use pit latrines, making it the most widely used method of disposing off human waste. Around 23 percent of households use flush toilets, and 21.5 percent of households use bushes to dispose off their human waste (see Figure 27).

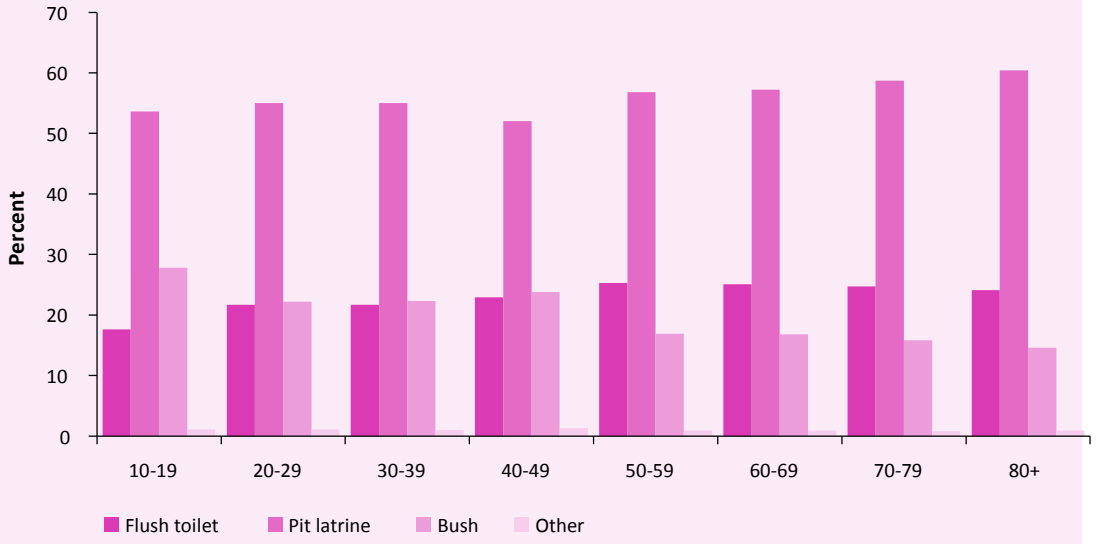
Figure 27: Mode of disposal of human waste



5.2 Households' mode of human waste disposal, by age of the household head

Pit latrines are the most commonly used method of disposing off human waste among households headed by persons of all ages. Households headed by persons aged 80 years and above use pit latrines the most, at 60.4 percent, which is slightly higher than households headed by persons of other ages (see Figure 28).

Figure 28: Mode of human waste disposal by age of the head of the household

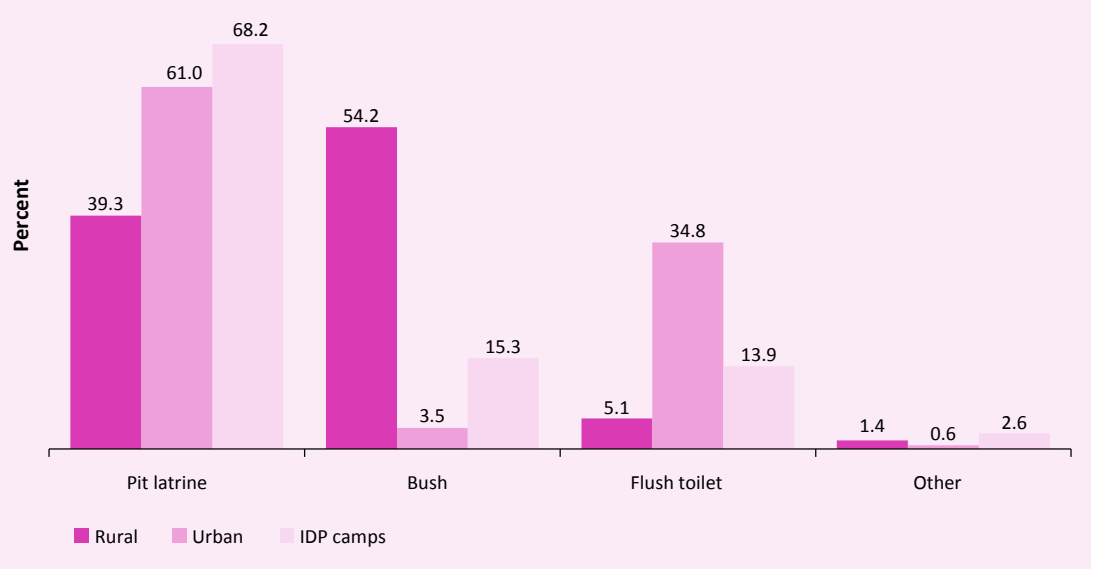


5.3 Households' mode of human waste disposal by type of residence

Urban households have the highest share of households using flush toilets at 34.8 percent, while 13.9 percent of IDP households and 5.1 percent of households in rural settings use flush toilets.

Twice as many IDP households (68.2 percent) than rural households (39.3 percent) use pit latrines. The largest proportion of households using bushes for human waste disposal is in rural settings (54.2 percent). A lower proportion of urban and IDP populations (3.5 percent and 15.3 percent respectively) use bushes for disposal off their human waste (see Figure 29).

Figure 29: Households' mode of human waste disposal by type of residence



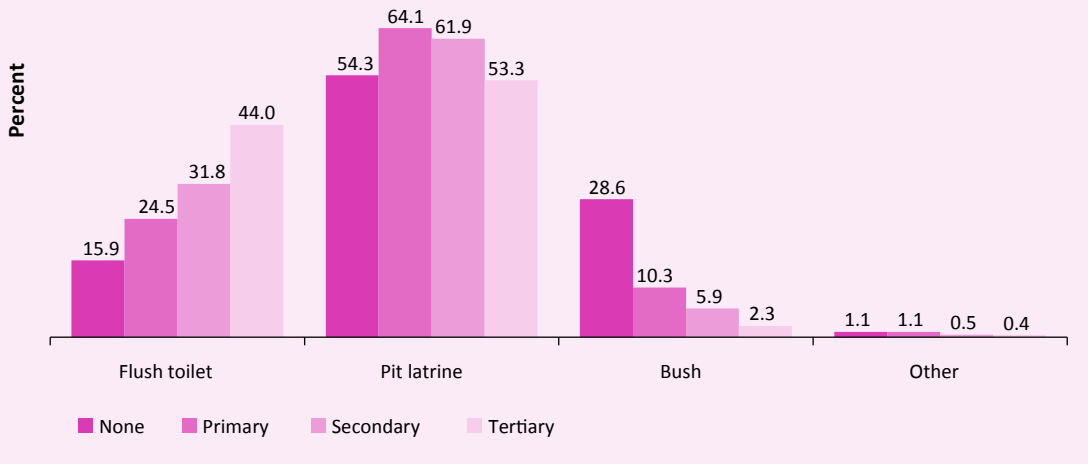
5.4 Households' mode of human waste disposal by educational level of the household head

Households in which the heads have attained a high level of education use flush toilets more than those whose heads have a lower level of education, or have not completed education. As the household heads' educational level increases, the use of flush toilets also increases. Among the households with heads without formal education, 15.9 percent use flush toilets compared to 44 percent of households headed by persons who have attained tertiary level of education (Figure 30).

On the other hand, pit latrines are used by more than half of the households, regardless of the household head's level of education. Among the households headed by persons without formal education, 54.3 percent reportedly use pit latrines. The disparities in the use of pit latrines are not large, as the lowest use is seen in households where heads have tertiary level of education, at 53.3 percent.

Low levels of education of household heads are associated with high use of bushes for human waste disposal. Around 29 percent of the households whose heads lack formal education use bushes for disposing human waste, and around 10 percent of households whose heads have attained primary level of education use bushes. As the level of education attained increases for household heads, the use of bushes for disposing of human waste decreases (Figure 30).

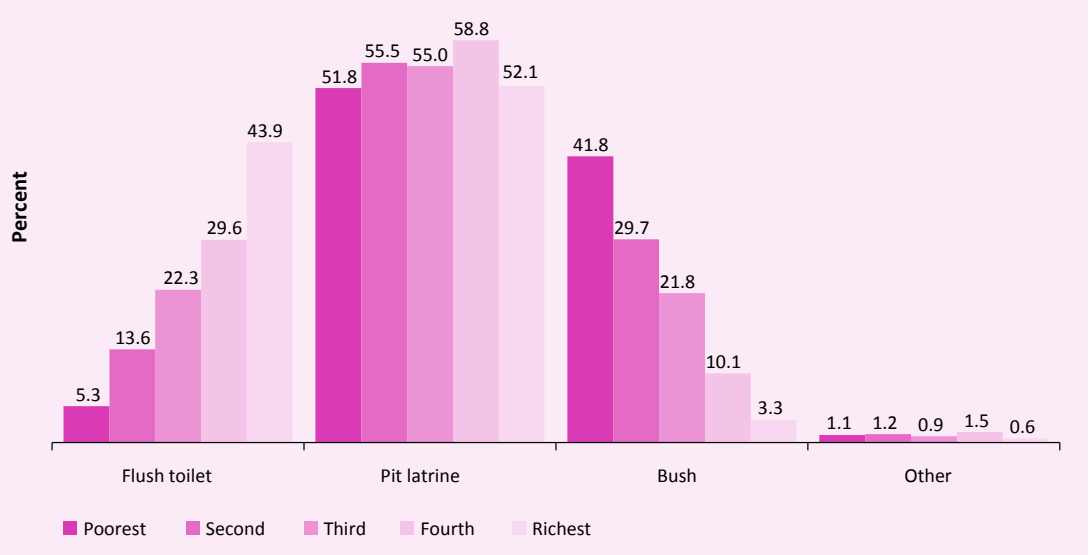
Figure 30: Households' mode of human waste disposal by educational level of the head of the household



5.5 Households' mode of human waste disposal by wealth quintile

According to Figure 31, wealthier households use more hygienic modes of human waste disposal than poorer households do. Among the wealthiest households, 43.9 percent use flush toilets. The households in the fourth and third wealth quintiles follow, with 29.6 percent and 22.3 percent of households using flush toilets. Only five percent of the poorest households use flush toilets, which illustrates their inability to own a flush toilet.

Figure 31: Households' mode of human waste disposal by wealth quintile



Households of all levels of wealth backgrounds use pit latrines, with minimal differences in the use of pit latrines across wealth quintiles. The lowest share of users of pit latrines is households in the poorest wealth quintile (51.8 percent); the highest share of users of pit latrines is in the fourth wealth quintile (58.8 percent). Around 52 percent of the wealthiest households use pit latrines.

Bushes are largely used by households in the lower wealth quintiles, particularly the lowest, at 41.8 percent. The wealthiest fourth and fifth wealth quintiles use bushes significantly less, compared to households in lower wealth quintiles (at 10.1 percent and 3.3 percent respectively).

There is a need to provide health education on safe methods of disposing off human waste, as well as resources to achieve this, given the large proportion of the population relying on unsafe means of disposal, particularly in the bush or open grounds. Interventions could target the members of the community with low levels of education and those that fall in low-income brackets as they are more likely to use improper means of disposal of human waste, and are therefore more vulnerable to contracting diseases.

6.

INFORMATION COMMUNICATION AND TECHNOLOGY

This chapter presents information on the ownership of radio, television sets and computers by households.

6 INFORMATION COMMUNICATION AND TECHONOLOGY

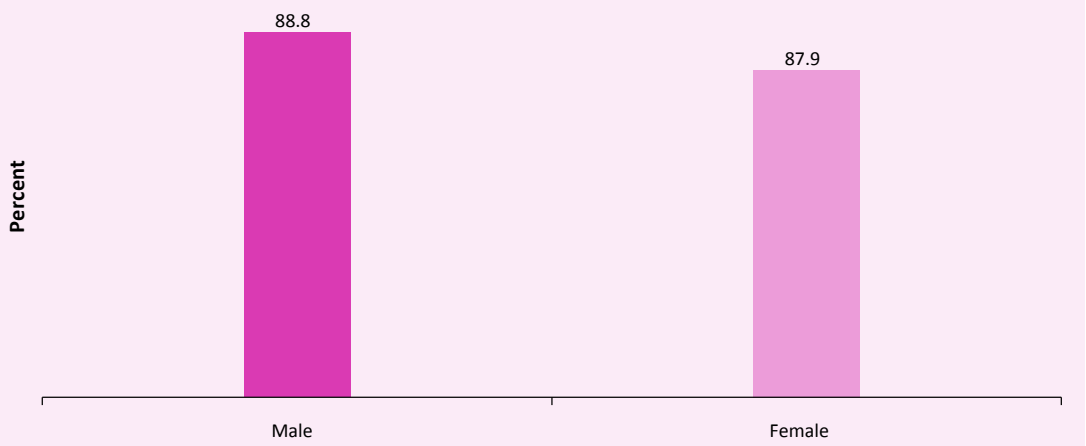
6.1 Radio

Households ownership of different information and communication technology (ICT) tools – such as radios, television sets (TVs) and computers – determines their access to information. The most frequently used communication tools are radios, with 88.6 percent of households owning radios. The radio is a popular and easily available media.

6.1.1 Radio ownership by sex of the household head

There is no marked difference between the ownership of radios by sex of the household head. Around 89 percent of the total male-headed households, and 87.9 percent of female-headed households own radios (see Figure 32).

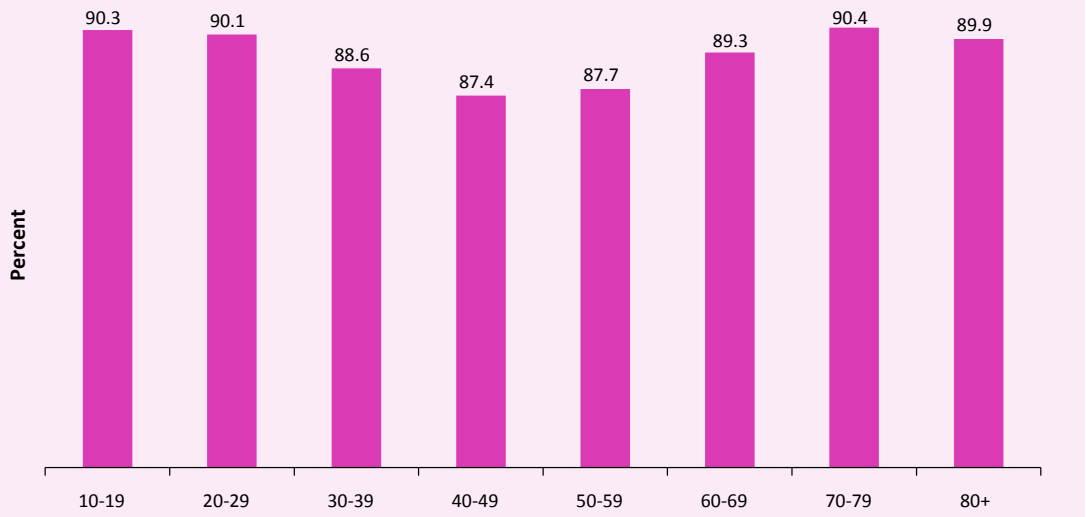
Figure 32: Radio ownership by sex of the head of the household



6.1.2 Radio ownership by age of the household head

There are minimal differences in radio ownership by age. In three age groups, more than 90 percent of households own radios: 10-19 years (90.3 percent), 20-29 years (90.1 percent) and 70-79 years (90.4 percent). The group with the least radio owners are the 30-39 year olds, at 88.6 percent (Figure 33).

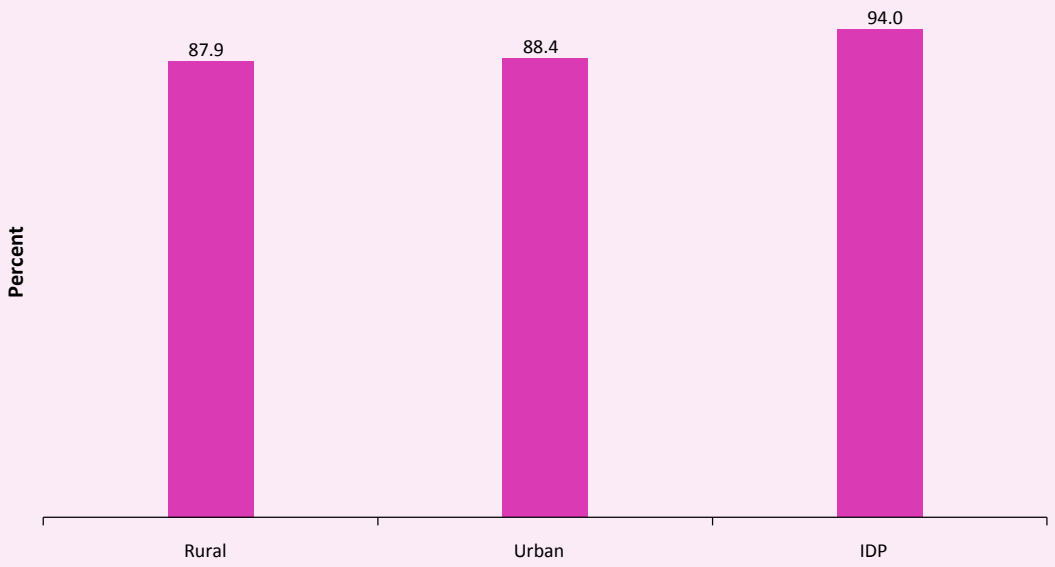
Figure 33: Radio ownership by age of the head of household



6.1.3 Radio ownership by type of residence

As shown in Figure 34, the highest rates of radio ownership are among IDPs' households, at 94.0 percent, followed by urban and rural households, at 88.4 percent and 87.9 percent respectively.

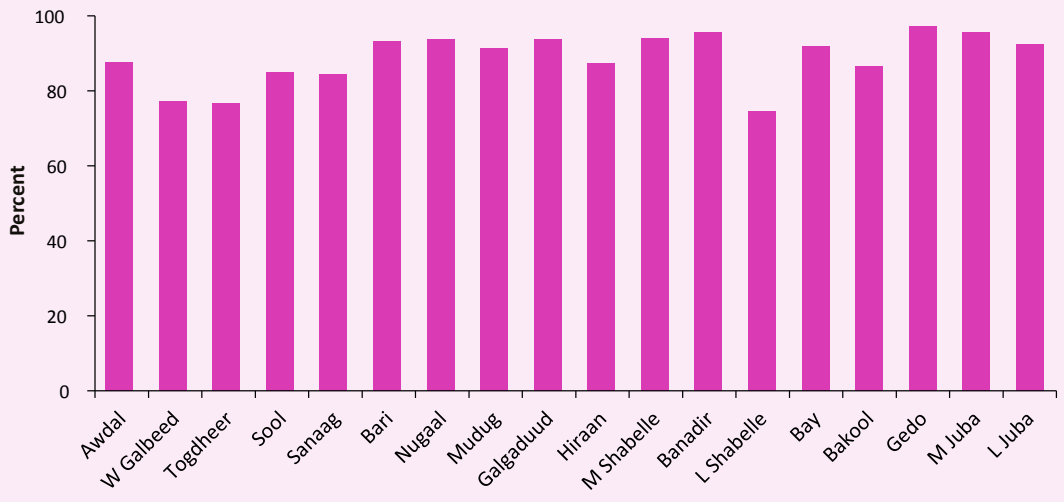
Figure 34: Ownership of radio by type of residence



6.1.4 Radio ownership by regions

Across the regions, the survey data shows little variation in patterns of ownership of radios, ranging from 74.6 percent in Lower Shebelle to 97.1 percent in Gedo (see Figure 35).

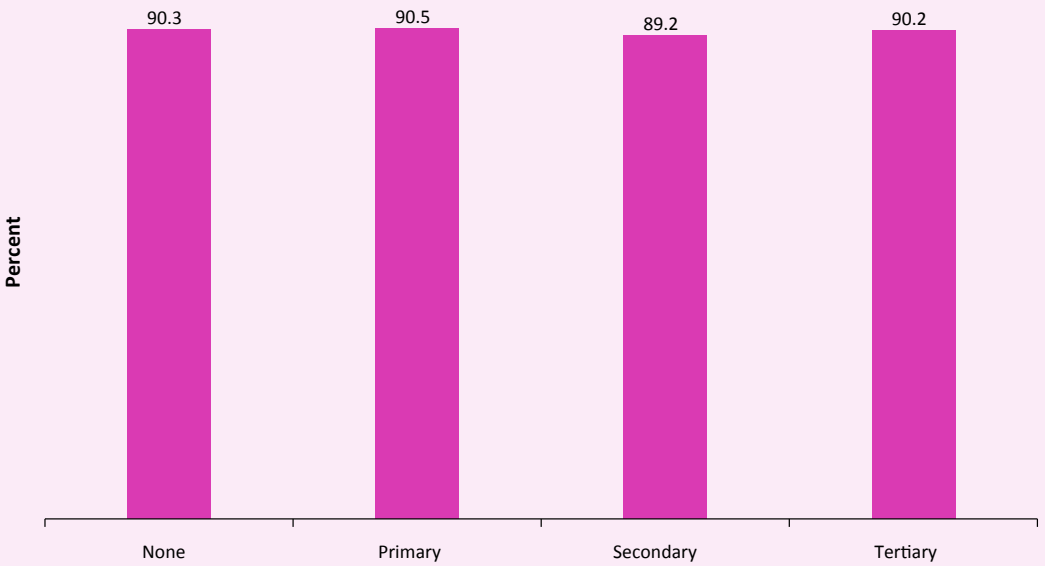
Figure 35: Percent ownership of radio by region



6.1.5 Radio ownership by level of education of the household head

Ownership of radios by level of education shows almost no variation, ranging from 89.2 percent for households whose heads have attained secondary education to 90.2 percent for households have attained primary education (see Figure 36).

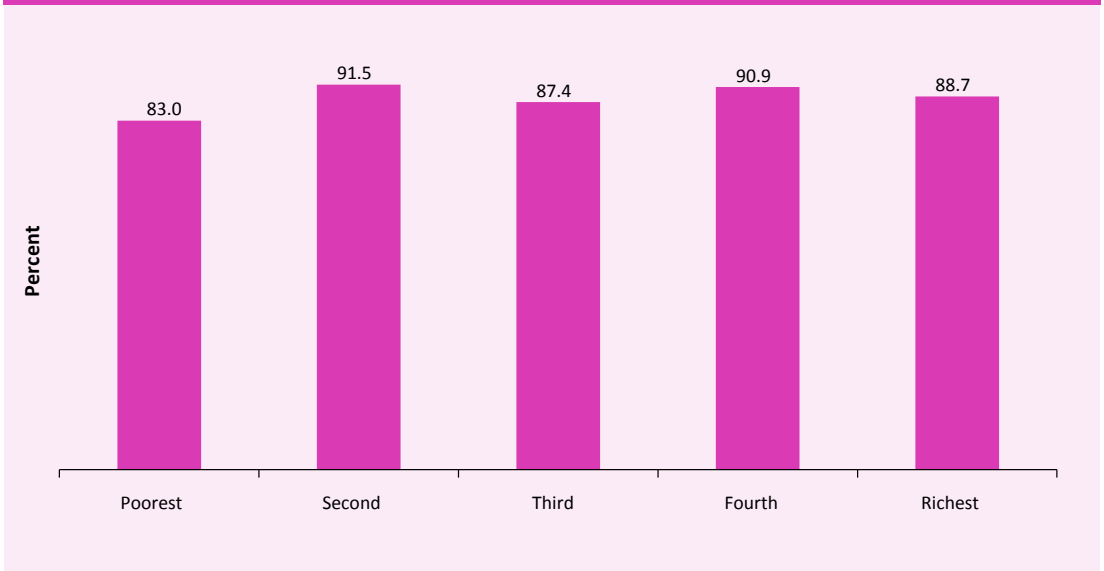
Figure 36: Ownership of radio by educational level of the head of the household



6.1.6 Ownership of radios by wealth status

On comparing the ownership of radios across households according to their wealth status does not show strong variations, with the exception of the fact that the poorest households (lowest quintile) have the lowest ownership rate at 83 percent (see Figure 37).

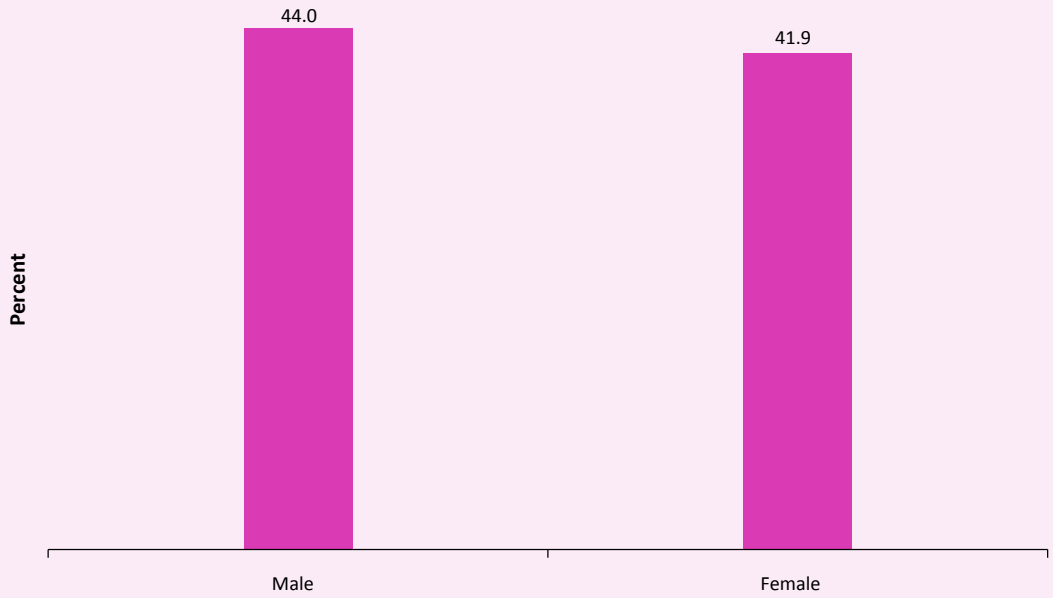
Figure 37: Radio ownership by wealth quintile



6.2 Ownership of television sets

Television sets are owned by 43.5 percent of all households. Ownership of television sets by sex of the household head indicates that both male and female headed households have nearly equal percentages of ownership, at 44.0 percent and 41.9 percent respectively (see Figure 38).

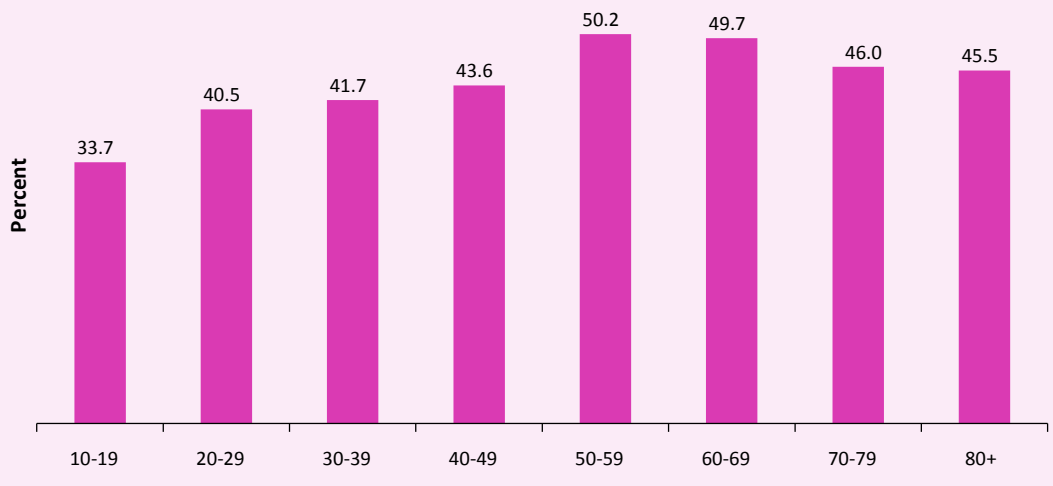
Figure 38: Ownership of television sets by sex of household head



6.2.1 Ownership of television sets by age of the household head

Television ownership increases with age. It is highest among Somali households with heads between 50 and 59 years of age, at 50.2 percent, and lowest among household with heads between 10 and 19 years of age, at 33.7 percent. Ownership among other age groups ranges between 40.5 percent (20-29 years) and 49.7 percent (60-69 years) (see Figure 39).

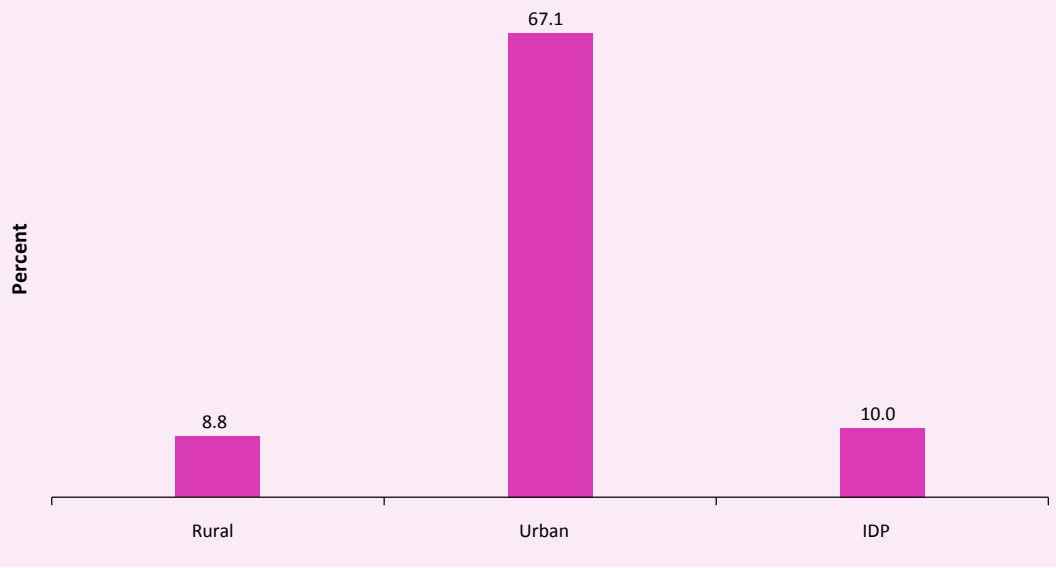
Figure 39: Television ownership by age of the head of the household



6.2.2 Ownership of television sets by type of residence

Households in urban areas have the highest ownership rates (around 67 percent) of television sets. Only 8.8 percent of rural dwellers own a television, compared to 10 percent of the IDPs (see Figure 40).

Figure 40: Television ownership by type of residence

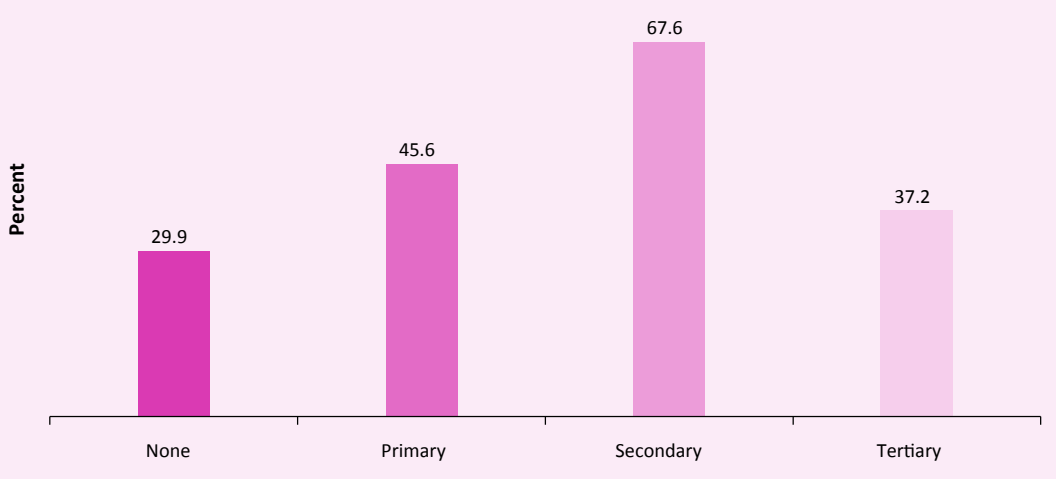


6.2.3 Television ownership by educational levels

There are wide disparities in ownership of television sets, depending on the level of education of the household heads. Only 29.9 percent of households where the head has no education own television sets. Households where the heads have secondary level education have the highest ownership rates of television sets (Figure 41).

Future thematic studies could investigate the relationship between the level of education, ICT equipment used, as well as values and preferences.

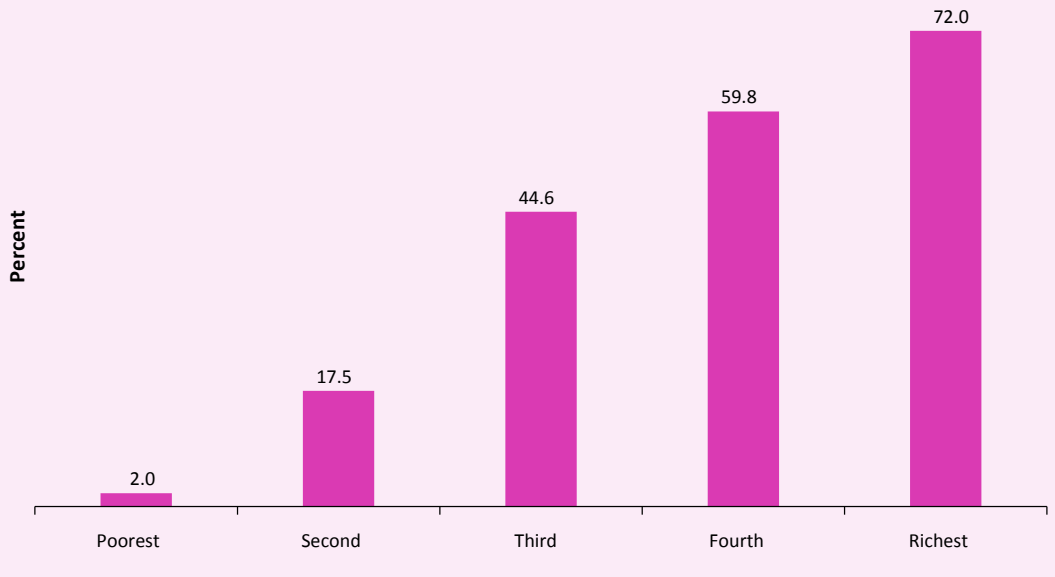
Figure 41: Television ownership by educational level of the household head



6.2.4 Television ownership by wealth quintile

The wealthier the household heads are, the higher the chance of ownership of television sets, which ranges between two percent among the poorest quintile and 72.0 percent among the richest (Figure 42).

Figure 42: Television ownership by wealth quintile



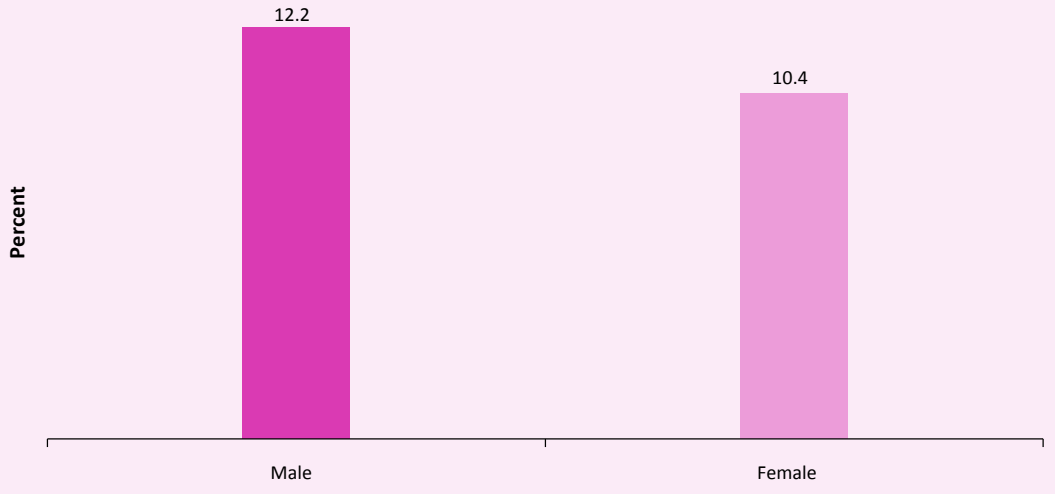
6.3 Ownership of computers

Computers are becoming a common tool in people's lives around the globe—in offices, at home, in banks, restaurants and other businesses. Computers are valuable in reducing negative consequences of illiteracy and increasing efficiency, productivity and communication. However, across the country, only 11.8 percent of Somali households own computers.

6.3.1 Ownership of computers by sex of the household head

There is a slight variation between male- and female-headed households ownership of computers, at 12.2 percent and 10.4 percent respectively (Figure 43).

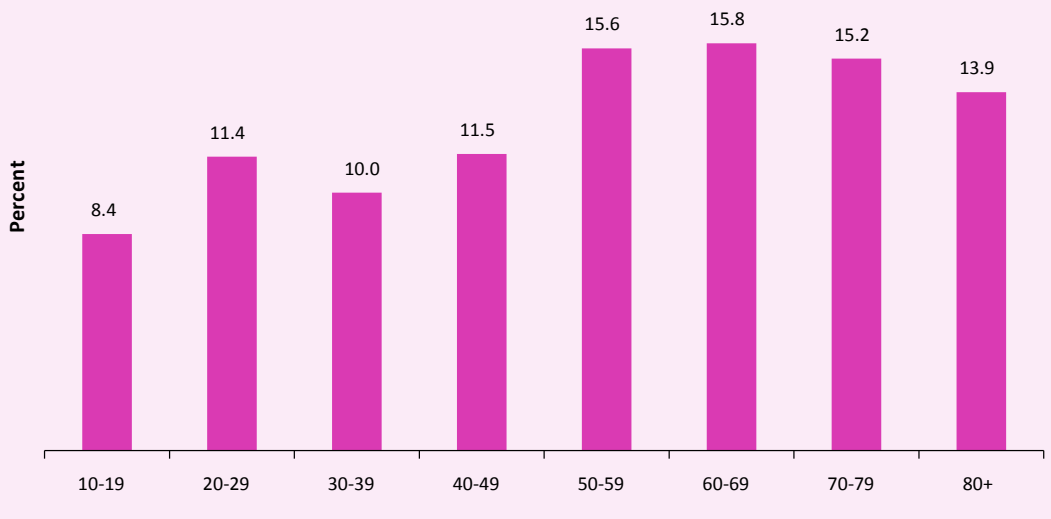
Figure 43: Ownership of computers by sex of the household head



6.3.2 Ownership of computers by age of the household head

Among the different age groups, around 11 percent of households with heads between 20 and 49 years, and around 16 percent of households with heads between 50 and 79 years, own a computer. Households with heads between 10 and 19 years of age have the lowest share of computers at 8.4 percent (see Figure 44).

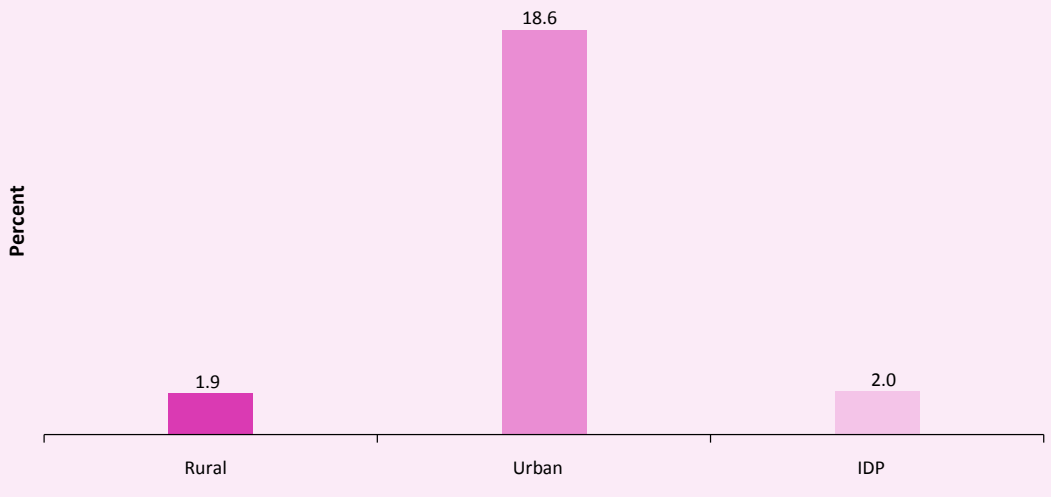
Figure 44: Ownership of computers by age of the household head



6.3.3 Ownership of computers by type of residence

Nearly 19 percent of urban households own computers, which is the highest share compared to other settings. Only around two percent of rural and IDP households own a computer (see Figure 45). This may be explained by insufficient availability and high costs of electricity and computers, in addition to other constraining socio-economic factors.

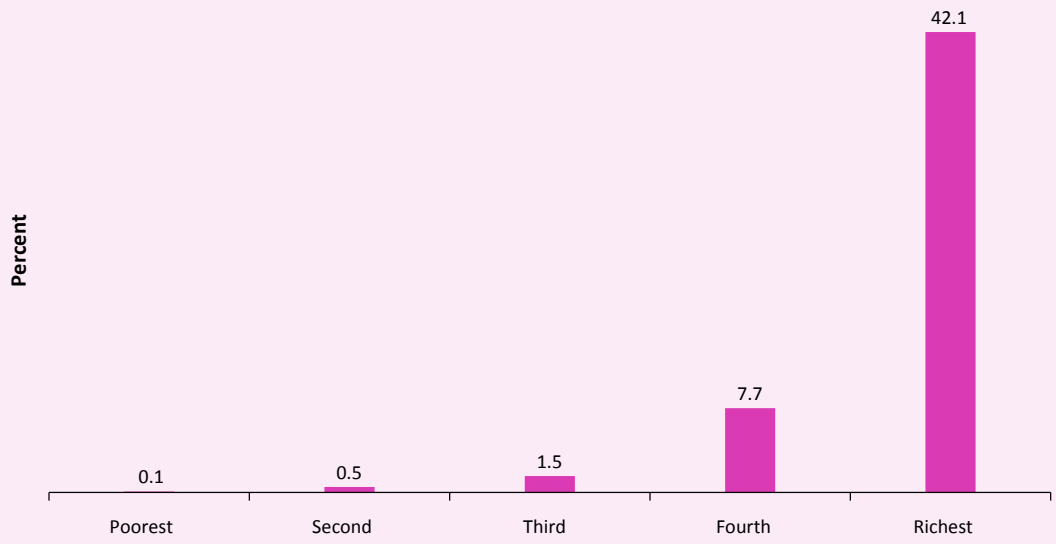
Figure 45: Ownership of computers by type of residence

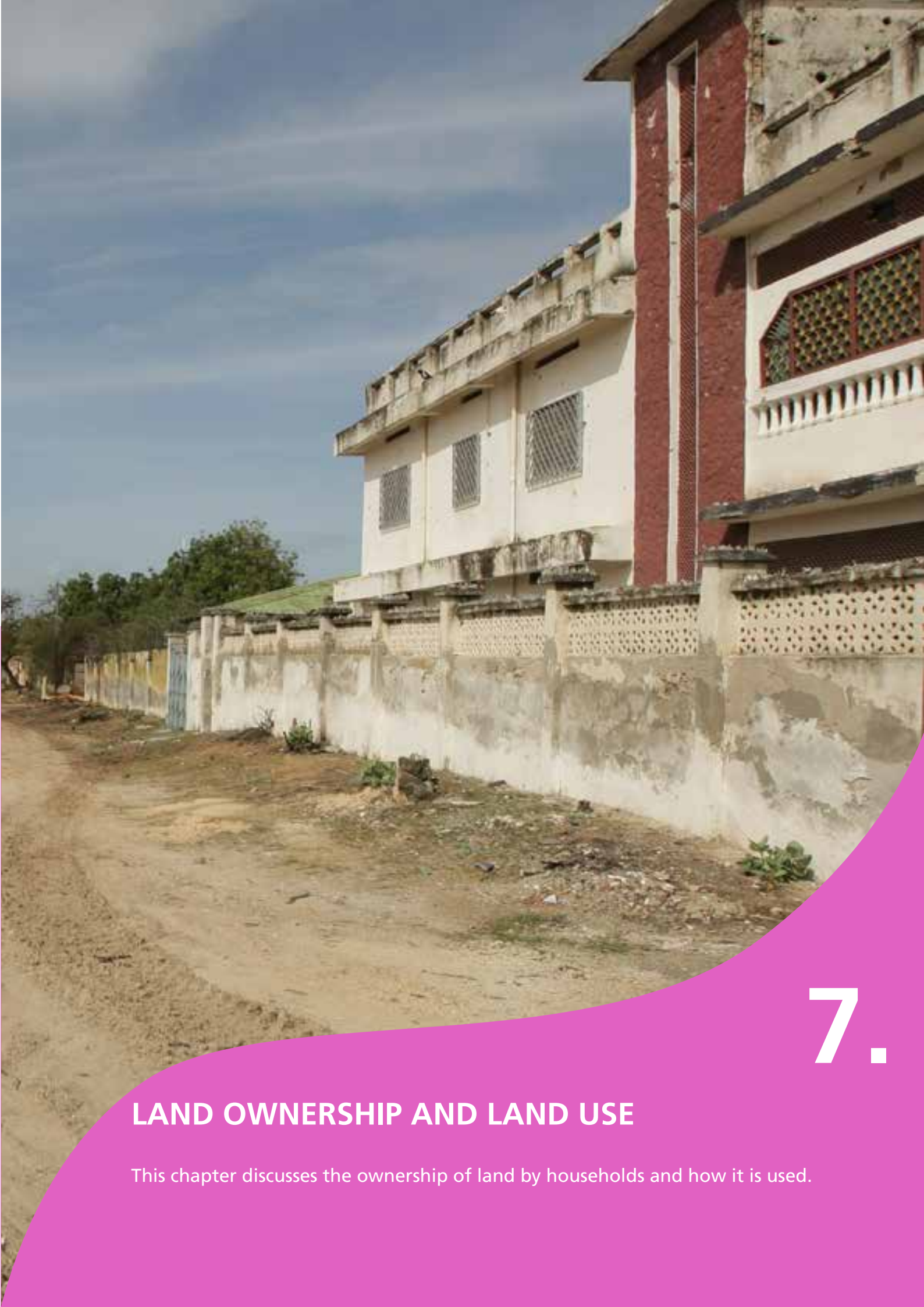


6.3.4 Ownership of computers by wealth quintile

As shown in the Figure 46 below, the wealthier the household heads are, the more likely they are to own a computer. Computer ownership ranges from 0.1 percent of households among the poorest quintile to 42.1 percent among the wealthiest households.

Figure 46: Computer ownership by wealth quintile





7.

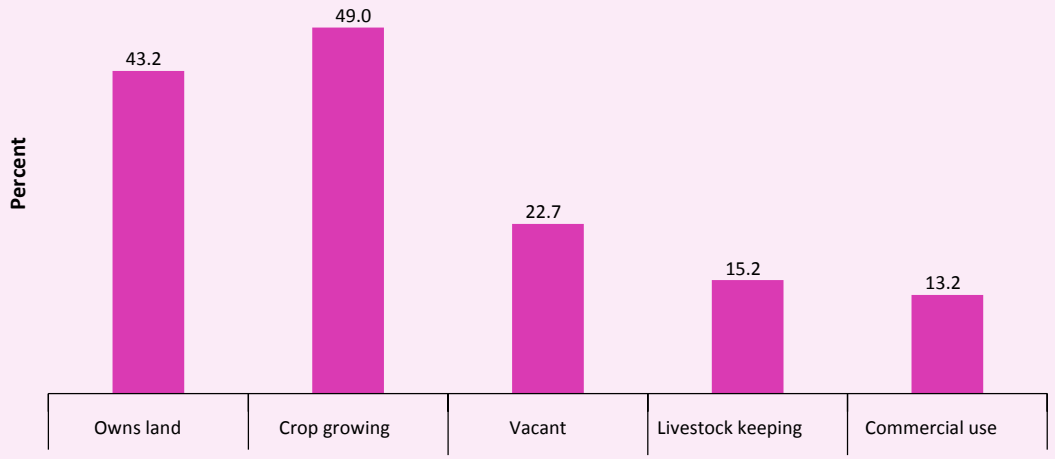
LAND OWNERSHIP AND LAND USE

This chapter discusses the ownership of land by households and how it is used.

7 LAND OWNERSHIP AND LAND USE

According to Figure 47, less than half of Somali households (43.2 percent) own land. Around 49 percent of land owned by households is used for crop farming, while another 22.7 percent is left vacant. Only 13.2 percent of land is being used for commercial purposes:

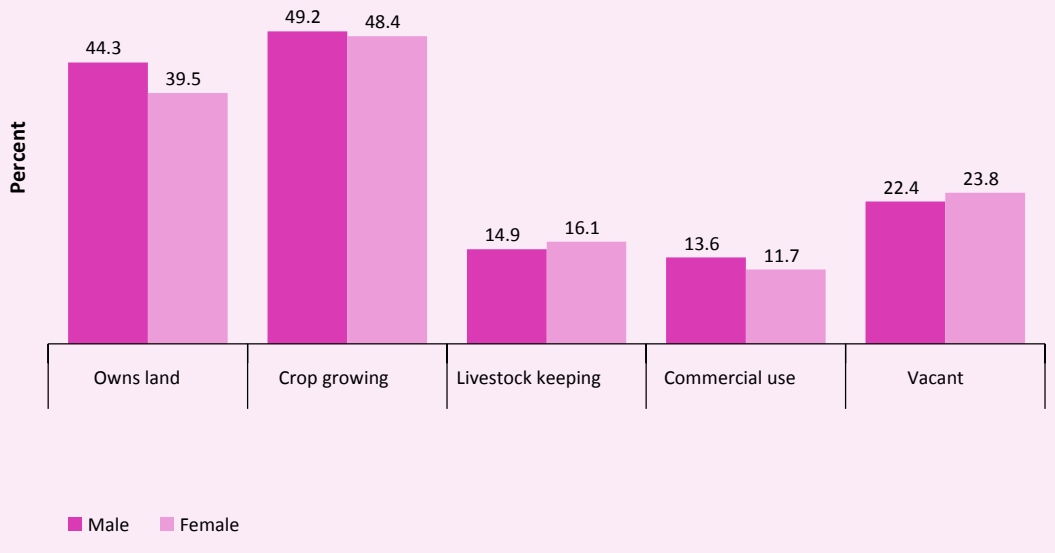
Figure 47: Land ownership and land use



7.1 Land ownership and land use by sex

According to the survey, there is a slight difference in land ownership by male- and female-headed households, with 44.3 percent of the male-headed households owning land, compared to 39.5 percent of female-headed households. Land use does not differ much by sex of the household head. Among male-headed households, 49.2 percent use their land for crop farming, with 22.4 percent reporting their land as vacant. In comparison, 48.4 percent of female-headed households use land for crop farming, whereas 23.8 percent state that their land is vacant (see Figure 48).

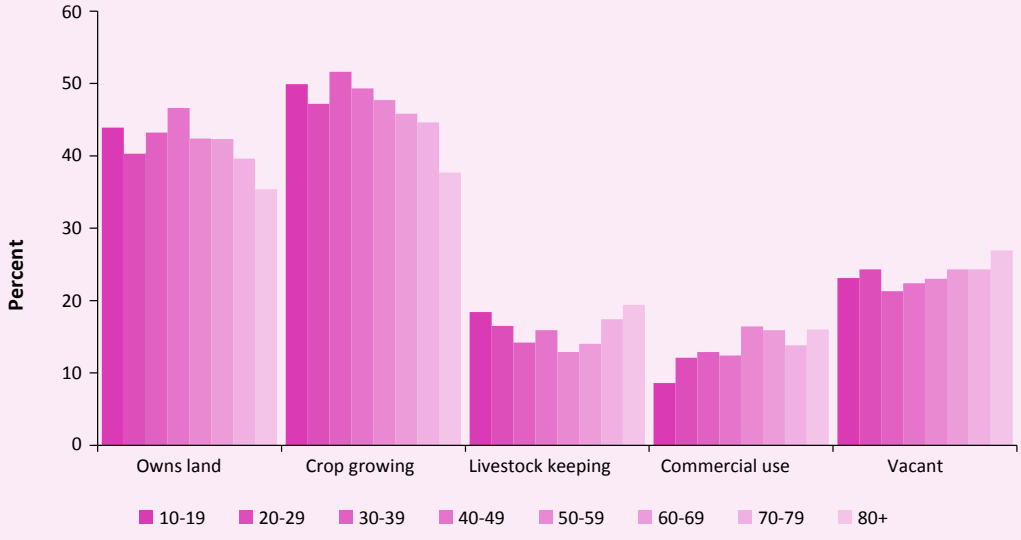
Figure 48: Land ownership and use by sex



7.2 Land ownership and land use by age of the household head

Land ownership is highest among households headed by 40-49 year olds and lowest among households headed by persons above 80 years. The aged household heads (more than 80 years old) have more vacant land, at 26.9 percent. Households with elderly heads (80 years and above) report to have the highest use of land for livestock farming, at 19.4 percent, followed by those with youngest household heads at 18.4 percent. Heads of household between 30-39 years of age use land for crop farming the most, at 51.6 percent (see Figure 49).

Figure 49: Land ownership and land use by age of the head of the household

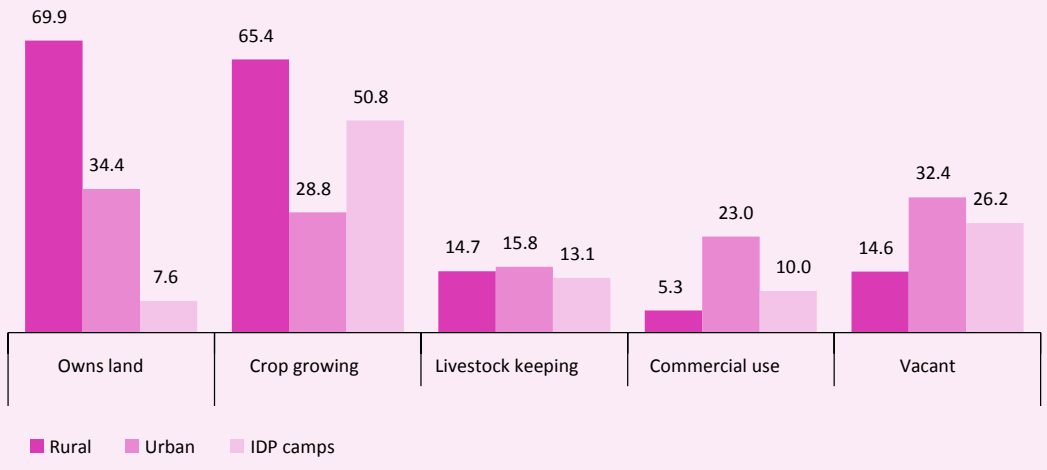


7.3 Land ownership and land use by type of residence

Land ownership in rural settings is almost twice as high as in urban areas, at 69.9 percent and 34.4 percent respectively, with IDPs having the lowest ownership rates. In rural areas and IDP camps, land is mainly used for crop farming, at 65.8 percent and 50.8 percent, followed by livestock farming at 14.7 percent and 13.1 percent respectively. There is also a significant proportion of land being left vacant.

Almost one-third of land (32.4 percent) in urban settings is left vacant, 23.0 percent of urban households are using their land for commercial purposes, compared to 10.0 percent and 5.3 percent of households in IDP camps and rural settings respectively (see Figure 50).

Figure 50: Land ownership and land use by type of residence

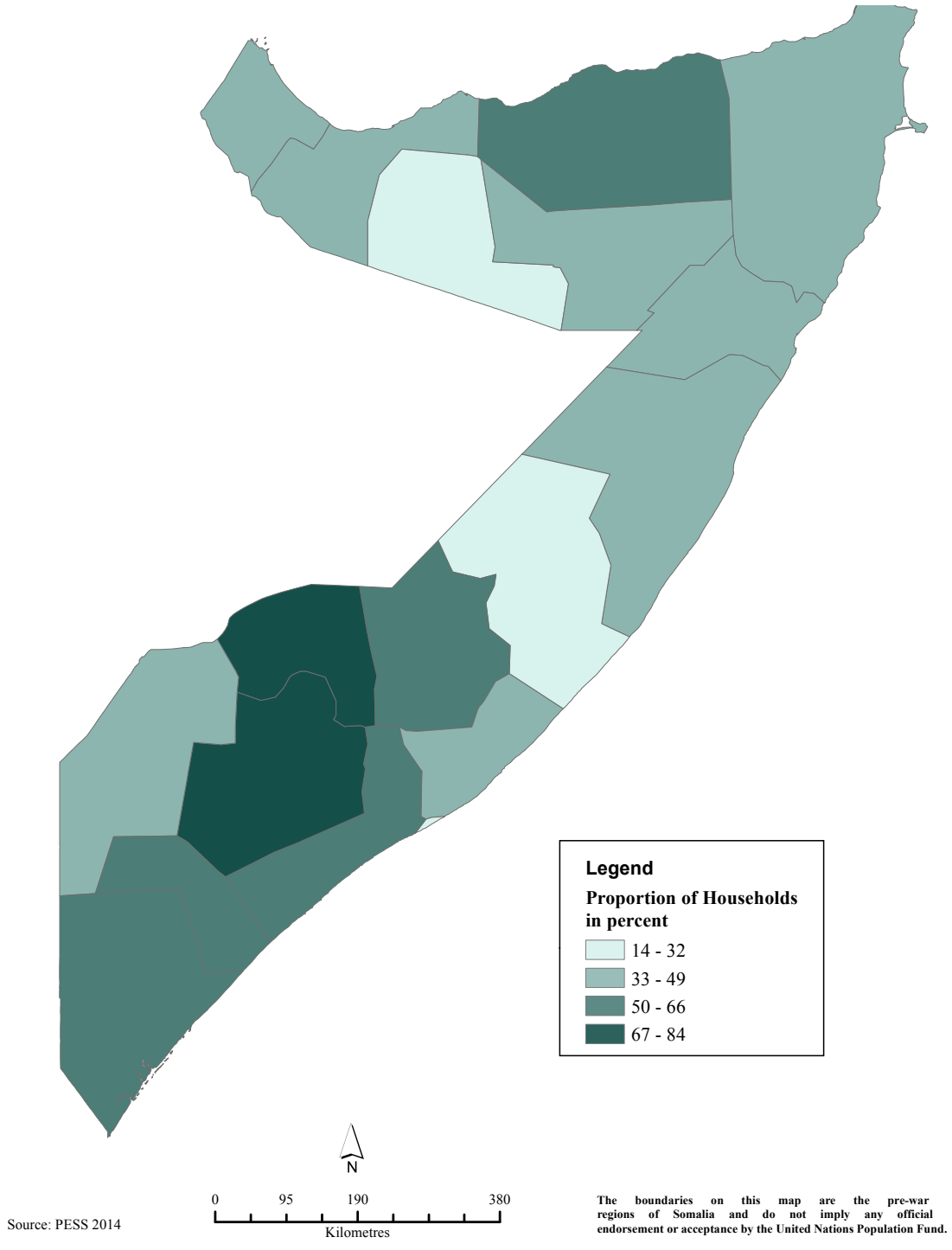


7.4 Land ownership and land use by region

According to geographically disaggregated data, land ownership by households ranges from 14.2 percent in Galgaduud to 83.8 percent in Bay as shown in Figure 51.

The use of land for crop farming is high in Lower Shabelle (85.3 percent) and Bay (73.0 percent), and the lowest in Mudug (13.0 percent) and Sool (15.4 percent) (Appendix E).

Figure 51: Percent of households owning land by region



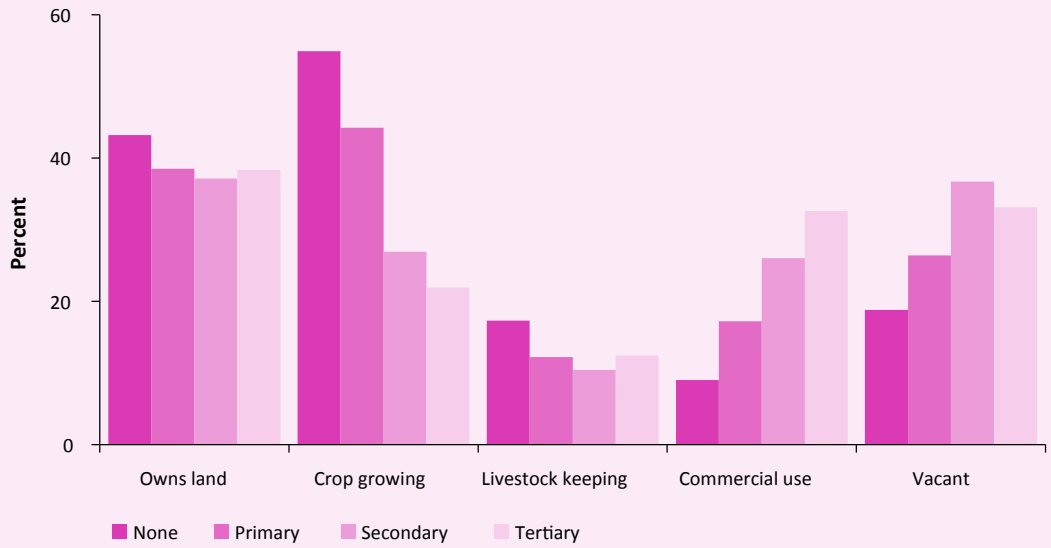
Source: PESS 2014

The boundaries on this map are the pre-war regions of Somalia and do not imply any official endorsement or acceptance by the United Nations Population Fund.

7.5 Land ownership and use by educational level of the household head

Land ownership does not vary much by educational level of the household head. However, household heads with no education have the highest proportion of land ownership. Households where heads have no education are also most likely to use their land for crop farming, at 54.9 percent, when compared to heads with other levels of education. The higher the education level, the more likely household heads are to use the land for commercial purposes; 32.6 percent of household heads who have attained tertiary education are using their land for commercial purposes. Among heads of household who have earned secondary and tertiary education, more than a third of households have idle land (Figure 52).

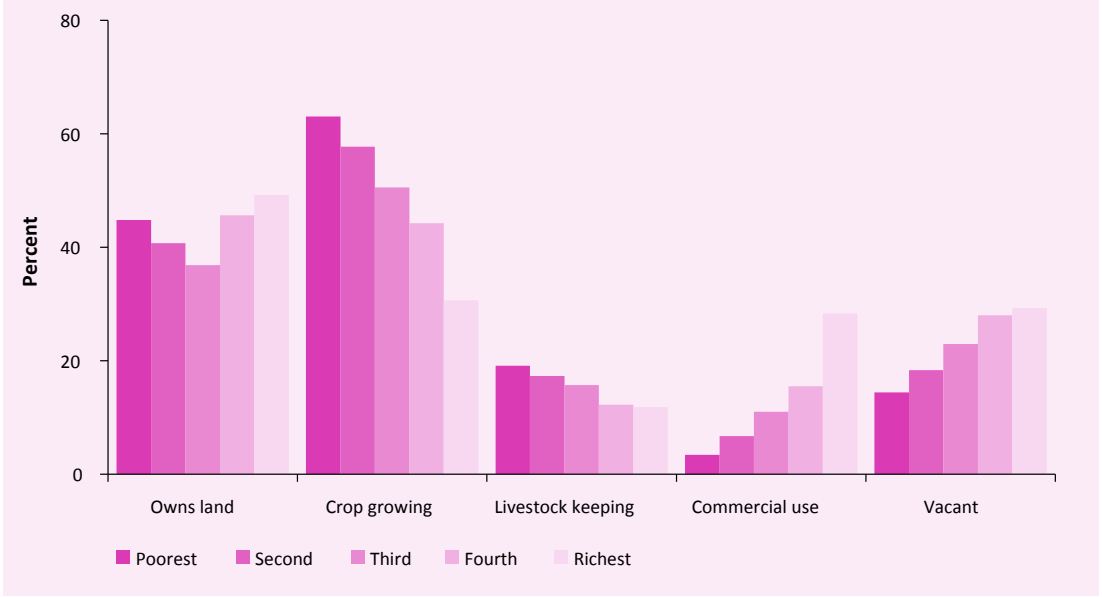
Figure 52: Land ownership and use by educational level of the household head



7.6 Land ownership and use by wealth quintile

Figure 53 shows that land ownership is highest among Somalis in the wealthiest quintile, at 49.2 percent, and lowest among household heads who fall in the third wealth quintile, at 36.8 percent. Among the poorest Somalis, 44.8 percent of households own land. Households in the poorest wealth quintile are most likely to use their land for crop farming (63 percent), compared to households from the other wealth quintiles. Overall, one of the least frequent uses of land is for livestock keeping, with less than 20 percent of all categories of wealth (nomadic communities are not included).

Figure 53: Land ownership and land use by wealth quintile



8.

CONCLUSION

This chapter gives a conclusion of the housing situation and household asset ownership for the Somali population.

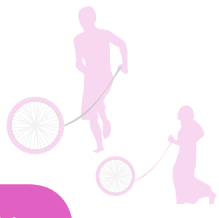
8 CONCLUSION

Sources of energy used at a household level are heavily reliant on the environment (firewood and charcoal), particularly for cooking. The use of these unsustainable sources contributes to climate change and its effects, such as extreme weather conditions, Additionally, these fuels can be harmful to household members, particularly persons directly in contact with them on a regular basis, as they emit high levels of harmful airborne toxins that result in lower respiratory infections.

The use of pit latrines for human waste disposal is low, particularly in rural areas. A significant number of households use improper practices for human waste disposal, which is unhygienic and unsafe, and leaves community members, particularly under-fives, vulnerable to contracting diseases.

A significant proportion of housing structures are temporary. To promote human dignity and alleviate the spread of communicable and non-communicable diseases, proper housing structures, are necessary. These kind of structures are mostly found in IDP camps, where transient members of the population are left vulnerable.

Land ownership remains low; less than half of the sampled households reportedly own land, with a higher share of landowners in rural households. Land use and management is heavily dependent on ownership, with those owning land practising better land management and use mainly in the agricultural zones.



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APPENDIX A – Main sources of energy for lighting

Table A. 1: Sources of energy for lighting by selected background characteristics (percent)

	Electricity	Solar Energy	Kerosene	Firewood	Torch	Other	Total (n)
Sex of household head							
Male	48.0	1.4	8.0	6.2	34.6	1.7	1,085,101
Female	43.7	1.5	7.1	6.2	40.1	1.4	330,111
Type of residence							
Rural	12.5	1.0	11.2	12.9	59.5	2.8	465,630
Urban	75.5	1.7	6.6	2.2	13.5	0.6	790,357
IDP Camps	6.7	1.7	4.2	6.2	78.1	3.0	159,197
Age of household head							
10-19	38.4	1.7	8.3	7.9	42.5	1.2	15,915
20-29	46.3	1.3	7.8	6.7	36.2	1.7	283,029
30-39	45.3	1.4	7.4	6.7	37.4	1.8	426,690
40-49	46.7	1.4	7.6	6.1	36.7	1.5	379,876
50-59	52.0	1.6	8.7	4.9	31.6	1.3	169,315
60-69	50.6	1.7	8.5	5.0	32.5	1.7	86,945
70-79	48.0	2.1	8.8	5.2	33.9	2.1	37,715
80+	46.4	1.8	10.1	6.5	34.1	1.2	15,620
Formal education completed by household head							
None	33.8	1.4	9.1	7.7	46.1	1.8	748,775
Primary	54.5	1.5	8.0	3.5	31.0	1.4	102,945
Secondary	75.4	1.2	5.3	4.0	13.5	0.7	118,555
Tertiary	88.2	0.9	2.7	1.4	6.7	0.2	79,730
Wealth index							
Poorest	6.4	1.3	14.4	7.2	69.1	1.6	271,699
Second	47.2	1.6	6.7	5.9	37.6	1.0	299,271
Third	55.2	1.2	4.8	6.8	30.5	1.6	297,723
Fourth	51.9	1.3	8.6	7.7	27.7	2.8	281,738
Richest	74.1	1.8	5.0	3.2	14.8	1.1	264,663
Total	47.0	1.4	7.8	6.2	35.9	1.6	1,415,212

APPENDIX B – Main sources of energy for cooking

Table B. 1: Sources of energy for cooking by selected background characteristics (percent)

	Electricity	LPG	Kerosene	Charcoal	Firewood	Agric crop residue	Livestock dung	Other	Total (n)
Sex of household head									
Male	2.3	0.9	1.1	57.4	37.9	0.1	0.0	0.1	1,085,151
Female	2.4	0.9	1.2	53.1	42.2	0.1	0.0	0.1	330,121
Type of residence									
Rural	0.5	0.2	0.8	25.3	72.9	0.3	0.0	0.0	465,759
Urban	3.8	1.5	1.3	82.5	10.7	0.1	0.0	0.1	790,006
IDP Camps	0.6	0.2	1.2	18.4	79.4	0.2	-	0.1	159,508
Age of household head									
10-19	2.4	0.4	1.4	48.3	47.1	-	-	0.3	15,724
20-29	2.2	0.9	1.2	55.6	39.8	0.1	0.0	0.2	283,063
30-39	2.1	0.9	1.2	54.9	40.6	0.1	0.0	0.1	426,911
40-49	2.4	0.8	1.1	56.5	39.0	0.2	0.0	0.0	379,834
50-59	2.5	1.2	1.0	60.0	35.2	0.1	0.0	0.0	169,396
60-69	2.6	1.2	0.9	59.8	35.3	0.1	0.0	0.1	86,967
70-79	3.4	1.2	0.9	58.3	35.9	0.1	0.1	0.2	37,664
80+	3.0	0.7	2.0	59.7	34.0	0.2	0.2	0.3	15,608
Formal education completed by household head									
None	1.6	0.6	1.0	46.7	49.8	0.2	0.0	0.1	749,141
Primary	2.3	1.1	1.0	65.0	30.4	0.1	0.0	0.1	102,962
Secondary	2.7	1.1	1.2	79.2	15.6	0.1	0.0	0.1	118,620
Tertiary	3.9	2.3	2.2	85.5	6.0	0.0	0.0	0.1	79,751
Wealth index									
Poorest	0.4	0.4	0.8	30.8	67.5	0.2	0.0	0.1	271,695
Second	1.9	0.8	0.8	53.4	42.8	0.0	0.0	0.2	299,219
Third	2.2	0.7	0.6	57.9	38.3	0.2	0.0	0.1	297,933
Fourth	2.4	0.8	1.2	66.9	28.4	0.2	0.0	0.0	281,861
Richest	4.8	2.0	2.4	73.5	17.0	0.1	0.0	0.1	264,474
Total	2.3	0.9	1.1	56.4	38.9	0.1	0.0	0.1	1,415,273

APPENDIX C – Mode of human waste disposal

Table C. 1: Mode of human waste disposal by selected background characteristics (percent)

	Flush toilet	Pit latrine	Bush	Other	Total (n)
Sex of household head					
Male	22.7	54.5	21.8	0.9	1,080,383
Female	22.7	55.2	20.6	1.5	328,218
Type of residence					
Rural	5.1	39.3	54.2	1.4	463,716
Urban	34.8	61.0	3.5	0.6	786,499
IDP Camps	13.9	68.2	15.3	2.6	158,386
Age of household head					
10-19	17.6	53.6	27.8	1.1	15,683
20-29	21.7	55.0	22.2	1.1	282,018
30-39	21.7	55.0	22.3	1.0	424,894
40-49	22.9	52.0	23.8	1.3	378,003
50-59	25.3	56.8	16.9	0.9	168,393
60-69	25.1	57.2	16.8	0.9	86,422
70-79	24.7	58.7	15.8	0.8	37,527
80+	24.1	60.4	14.6	0.9	15,555
Formal education completed by household head					
None	15.9	54.3	28.6	1.1	745,629
Primary	24.5	64.1	10.3	1.1	102,500
Secondary	31.8	61.9	5.9	0.5	118,196
Tertiary	44.0	53.3	2.3	0.4	79,454
Wealth index					
Poorest	5.3	51.8	41.8	1.1	270,611
Second	13.6	55.5	29.7	1.2	297,893
Third	22.3	55.0	21.8	0.9	296,069
Fourth	29.6	58.8	10.1	1.5	280,371
Richest	43.9	52.1	3.3	0.6	263,568
Total	22.7	54.7	21.5	1.1	1,408,601

APPENDIX D – Type of housing unit

Table D. 1: Type of materials used for flooring by selected background characteristics (percent)

	Cement	Floor tiles	Wood	Earth	Other	Total (n)
Sex of household head						
Male	37.7	8.8	1.6	51.1	0.7	1,081,340
Female	35.7	8.5	1.6	52.8	1.4	328,697
Type of residence						
Rural	11.4	1.7	1.6	84.7	0.6	464,783
Urban	57.7	14.1	1.6	26.2	0.4	787,734
IDP Camps	11.2	2.5	1.7	80.5	4.1	157,519
Age of household head						
10-19	29.2	7.7	0.9	60.3	1.9	15,619
20-29	36.4	8.2	1.5	52.8	1.1	282,439
30-39	36.5	7.8	1.7	53.2	0.8	425,012
40-49	37.4	8.4	1.4	52.0	0.8	378,639
50-59	40.0	11.1	1.7	46.4	0.7	168,515
60-69	38.6	10.6	1.9	47.9	1.0	86,631
70-79	38.4	11.2	1.5	48.2	0.7	37,549
80+	38.2	10.8	2.1	47.9	1.0	15,526
Formal education completed by household head						
None	27.2	5.8	1.5	64.3	1.2	746,296
Primary	46.8	7.6	1.5	43.4	0.6	102,587
Secondary	57.4	12.6	1.4	28.2	0.4	118,187
Tertiary	59.2	23.2	1.3	16.1	0.3	79,594
Wealth index						
Poorest	7.3	1.3	1.8	88.9	0.7	271,091
Second	36.1	4.2	1.3	57.4	0.9	298,597
Third	46.1	6.4	1.2	45.2	1.1	297,036
Fourth	40.6	11.9	1.9	44.5	1.1	280,290
Richest	56.0	20.8	1.8	20.9	0.5	262,932
Total	35.7	8.5	1.6	52.8	1.4	1,410,037

Table D. 2: Type of materials used for roofing by selected background variable (percent)

	Concrete	Roof Tiles	Iron Sheet	Wood	Palm leaf/sod	Other	Total (n)
Sex of household head							
Male	8.0	4.6	58.5	3.5	22.2	3.2	1,082,620
Female	7.1	4.8	54.9	3.6	24.6	4.9	328,725
Type of residence							
Rural	2.6	1.7	44.8	3.8	46.2	1.0	465,384
Urban	12.2	6.8	71.5	3.1	5.7	0.7	789,101
IDP Camps	1.7	2.8	26.1	4.6	39.0	25.8	156,860
Age of household head							
10-19	7.6	4.7	49.9	3.4	30.7	3.7	15,682
20-29	8.0	4.5	55.6	3.3	25.3	3.3	282,610
30-39	6.9	4.3	58.0	3.5	23.7	3.6	425,538
40-49	8.0	4.6	59.0	3.2	22.1	3.2	379,226
50-59	8.7	5.4	58.5	3.8	19.4	4.1	168,783
60-69	8.9	5.1	57.7	4.0	19.9	4.4	86,173
70-79	9.3	5.7	54.5	4.6	20.0	5.9	37,651
80+	6.6	6.1	58.8	5.9	19.2	3.4	15,577
Formal education completed by household head							
None	5.1	3.5	50.0	4.0	32.2	5.3	747,066
Primary	7.8	5.2	66.5	3.9	13.9	2.7	102,491
Secondary	11.2	5.9	71.3	2.4	7.9	1.3	118,510
Tertiary	17.6	8.1	69.4	1.5	2.4	1.0	79,604
Wealth index							
Poorest	0.7	1.8	37.8	5.4	47.2	7.1	271,257
Second	4.1	3.3	57.4	2.2	29.6	3.4	298,914
Third	6.8	3.7	60.1	3.1	22.8	3.5	296,684
Fourth	10.2	6.0	66.0	4.4	10.1	3.2	280,851
Richest	18.2	8.8	66.6	2.4	3.3	0.7	263,549
Total	7.8	4.7	57.6	3.5	22.8	3.6	1,411,345

Table D. 3: Main materials of walls by selected background characteristics (percent)

	Stone/ Brick/ Block	Mud & Wood	Wood	Iron Sheets	Grass/ Dirt	Other	Total (n)
Sex of household head							
Male	41.3	14.1	2.9	16.5	19.1	6.1	1,078,339
Female	40.4	13.9	3.1	16.6	20.4	5.6	327,168
Type of residence							
Rural	10.5	29.6	2.6	13.5	34.3	9.5	463,083
Urban	65.1	7.1	3.1	18.0	5.3	1.4	785,971
IDP Camps	11.0	2.9	3.7	18.3	45.8	18.5	156,453
Age of household head							
10-19	36.3	14.6	3.0	14.9	24.8	6.3	15,642
20-29	41.7	15.4	3.2	14.4	20.7	4.6	281,308
30-39	38.8	15.8	2.9	17.4	19.7	5.4	424,103
40-49	40.0	12.5	2.8	18.4	19.3	7.0	377,473
50-59	45.6	11.9	2.9	15.1	17.3	7.3	167,879
60-69	44.6	12.2	3.6	15.4	17.6	6.6	85,986
70-79	45.2	13.0	2.8	14.1	18.9	6.0	37,479
80+	44.1	10.9	3.5	17.9	19.2	4.2	15,531
Formal education completed by household head							
None	28.2	16.4	3.3	17.5	28.2	6.4	743,750
Primary	49.1	12.8	2.7	17.4	11.8	6.3	102,344
Secondary	64.8	9.6	2.3	14.5	6.9	1.9	118,199
Tertiary	76.2	5.9	1.8	12.6	2.5	1.0	79,459
Wealth index							
Poorest	6.1	19.6	3.8	19.4	38.9	12.2	270,146
Second	32.5	12.7	3.3	19.5	25.2	6.8	297,335
Third	47.1	13.5	2.3	12.4	19.4	5.3	295,324
Fourth	49.8	16.5	3.1	17.1	9.7	3.9	279,452
Richest	70.7	7.7	2.4	14.3	3.1	1.7	263,161
Total	41.1	14.0	3.0	16.6	19.4	6.0	1,405,507

APPENDIX E – Ownership and utilization of land

Table E. 1: household land ownership and utilization by selected background characteristics (percent)

	Household land ownership		Household land use				
	Owns land	Total	Crop growing	Livestock keeping	Commercial use	Vacant	Total (n)
Sex of household head							
Male	44.3	1,067,085	49.2	14.9	13.6	22.4	466,637
Female	39.5	321,422	48.4	16.1	11.7	23.8	124,947
Type of residence							
Rural	69.9	460,680	65.4	14.7	5.3	14.6	320,073
Urban	34.4	774,399	28.8	15.8	23.0	32.4	260,604
IDP Camps	7.6	153,428	50.8	13.1	10.0	26.2	10,908
Age of household head							
10-19	43.9	15,403	49.9	18.4	8.6	23.1	6,737
20-29	40.3	276,292	47.2	16.5	12.1	24.3	109,722
30-39	43.2	419,577	51.6	14.2	12.9	21.3	178,906
40-49	46.6	373,418	49.3	15.9	12.4	22.4	171,575
50-59	42.4	166,088	47.7	12.9	16.4	23.0	69,374
60-69	42.3	85,283	45.8	14.0	15.9	24.3	35,529
70-79	39.6	37,062	44.6	17.4	13.8	24.3	14,436
80+	35.4	15,277	37.7	19.4	16.0	26.9	5,278
Formal education completed by household head							
None	43.2	739,094	54.9	17.3	9.0	18.8	314,944
Primary	38.5	101,156	44.2	12.2	17.2	26.4	38,404
Secondary	37.1	115,576	26.9	10.4	26.0	36.7	42,248
Tertiary	38.3	78,429	21.9	12.4	32.6	33.1	29,437
Wealth index							
Poorest	44.8	268,583	63.0	19.1	3.4	14.4	119,342
Second	40.7	294,388	57.7	17.3	6.7	18.3	118,363
Third	36.8	293,402	50.5	15.7	11.0	22.9	106,411
Fourth	45.6	274,874	44.2	12.2	15.5	28.0	122,847
Richest	49.2	257,170	30.6	11.8	28.3	29.3	124,621
Total	43.2	1,388,507	49.0	15.2	13.2	22.7	591,584

APPENDIX F – Ownership of equipment

Table F. 1: Household equipment asset ownership by selected background characteristics. Percent

	Radio	Television	Refrigerator	Washing machine	Computer	Car	Donkey cart	Boat/ canoe	Total (n)
Sex of household head									
Male	88.8	44.0	15.2	12.0	12.2	12.7	19.8	2.1	790,807
Female	87.9	41.9	14.0	11.5	10.4	9.7	17.9	1.9	213,874
Type of residence									
Rural	87.9	8.8	2.2	1.3	1.9	6.0	42.3	1.6	344,227
Urban	88.4	67.1	23.5	19.0	18.6	16.7	6.9	2.4	597,691
IDP Camps	94.0	10.0	3.2	2.1	2.0	2.1	13.2	1.2	62,751
Age of household head									
10-19	90.3	33.7	11.0	7.7	8.4	11.6	25.4	1.6	10,572
20-29	90.1	40.5	13.7	10.0	11.4	11.4	17.7	2.2	200,478
30-39	88.6	41.7	13.2	10.3	10.0	11.1	20.0	1.8	303,513
40-49	87.4	43.6	14.8	11.9	11.5	12.2	23.0	2.1	277,015
50-59	87.7	50.2	18.4	15.9	15.6	14.1	16.3	2.2	121,130
60-69	89.3	49.7	19.6	16.1	15.8	14.3	14.0	2.1	58,808
70-79	90.4	46.0	19.3	16.6	15.2	13.5	13.4	2.6	24,069
80+	89.9	45.5	19.5	15.4	13.9	12.3	12.0	3.8	9,036
Formal education completed by household head									
None	90.3	29.9	9.0	6.8	5.9	7.8	24.0	1.8	497,920
Primary	90.5	45.6	13.8	9.5	8.8	10.8	11.9	1.7	74,342
Secondary	89.2	67.6	20.4	16.6	17.3	16.7	6.8	2.1	97,988
Tertiary	90.2	37.2	11.2	8.5	7.9	9.4	20.2	1.9	670,250
Wealth index									
Poorest	83.0	2.0	0.1	0.0	0.1	0.7	52.8	0.5	141,332
Second	91.5	17.5	0.6	0.2	0.5	3.4	22.1	1.0	178,298
Third	87.4	44.6	1.9	0.7	1.5	3.7	13.3	1.1	227,328
Fourth	90.9	59.8	15.0	6.6	7.7	9.5	9.7	1.8	226,934
Richest	88.7	72.0	47.9	44.4	42.1	36.5	12.4	5.0	230,728
Total	88.6	43.5	14.9	11.9	11.8	12.1	19.4	2.1	1,004,681

APPENDIX G –Glossary of definitions and concepts

Age: The number of years a person has lived at the last birthday in reference to the survey date.

Dwelling unit: Is a place of abode (= residence), a room or a group of rooms with a private entrance normally intended as a residence for one household (for example: a single house, an apartment, a group of rooms in a house). A dwelling unit can also have more than one household.

Earth: The term 'earth' is used in the context of 'earthen floor' or naturally occurring materials, found in the earth. Earthen floors are usually made of dirt, raw earth or other raw materials from the ground

Enumeration Area: A designated survey area with an average of 50 to 149 households.

Head of Household: The most responsible/respectable member of the household who makes key decisions of the household on a day to day basis and whose authority is recognized by all members of the household. It could be the father, the mother or any other responsible member of the household.

Household: A person or a group of persons who reside in the same homestead/compound but not necessarily in the same dwelling unit, have the same cooking arrangement, and are answerable to the same household head. Note that a household could consist of one person only.

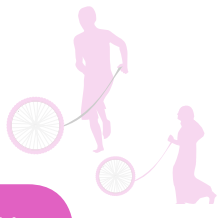
Nomadic population: The population with no permanent place of residence and who are in constant movement in search of pastures and water for grazing livestock. They rely entirely on livestock as their main source of livelihood.

Sampling frame: A collection of all relevant units e.g. settlements from which a sample is selected

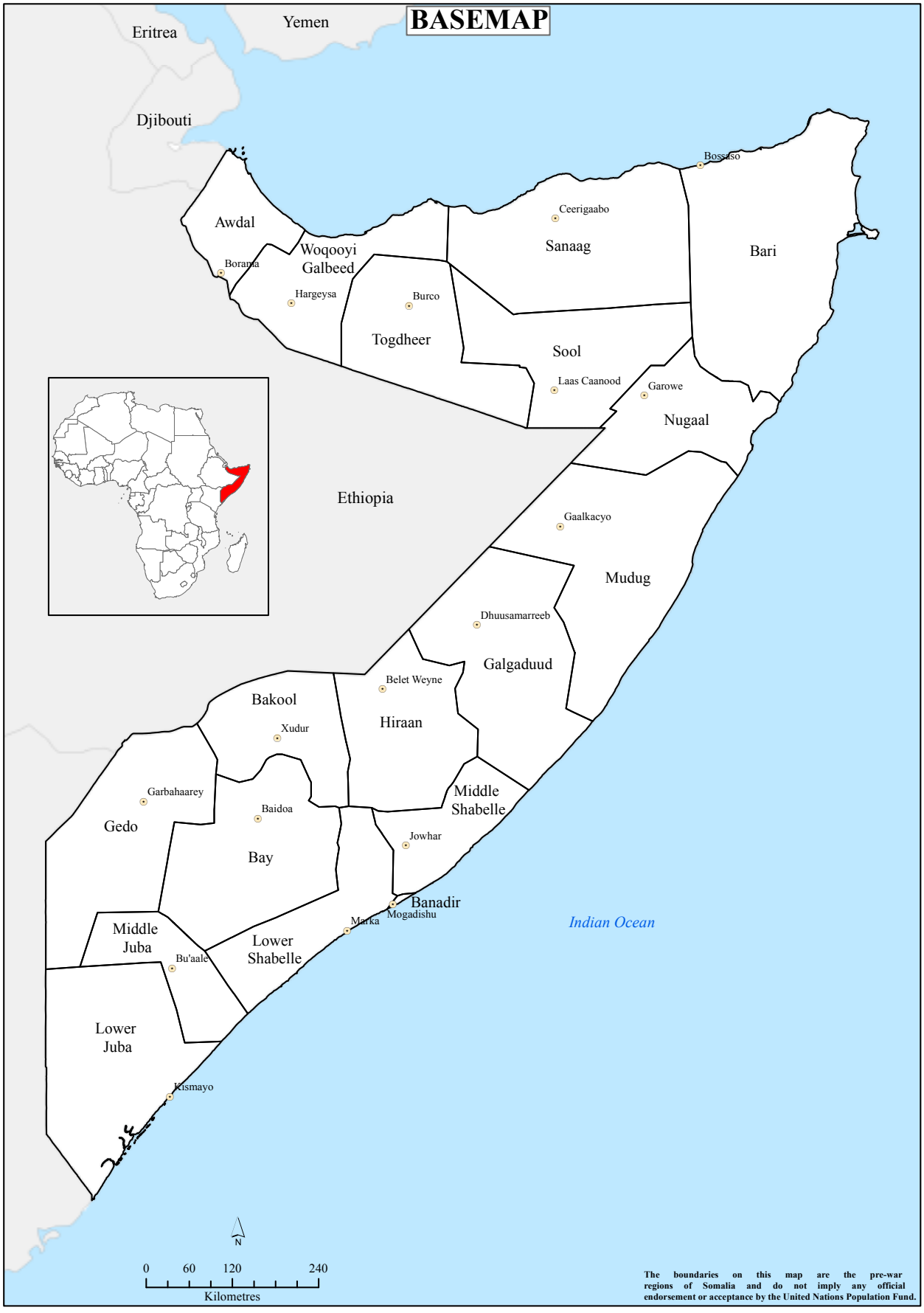
Sod: The surface of the ground, with the grass growing on it, or a piece of turf.

Structure: A building used for purposes of residential, business or any other activity.

Wealth quintile: A score which represents how wealthy people are, based on the characteristics of their household. Wealth quintiles are categorizations of the total population into five subdivisions each comprising 20 percent of the population. The lowest quintile represents the poorest segment of the population. The nomadic Somali population was not included in the calculation of the wealth index.



APPENDIX H – Basemap

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