The State of Mainland Tanzania's Children

Evidence from the Mainland Household Budget Surveys (2007–2018)

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Acronyms and abbreviations

COVID-19	coronavirus disease 2019
CIAF	Composite Index of Anthropometric Failure
DHS	Demographic and Health Survey
HBS	Household Budget Survey
ILO	International Labour Organization
MD	multidimensional
MODA	Multiple Overlapping Deprivation Analysis
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children, Tanzania
NBS	National Bureau of Statistics
OCGS	Office of the Chief Government Statistician, Zanzibar
SDG	Sustainable Development Goal
TSh	Tanzanian shilling
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Foreword

Children are the heart of our nation's future.

The State of Mainland Tanzania's Children: Evidence from the Mainland Household Budget Surveys (2007–2018) is a milestone in our commitment to children's well-being. It is the first report to comprehensively measure child poverty, considering both monetary and multidimensional aspects using data spanning over a decade.

Childhood poverty profoundly impacts development, education, job prospects, health and life choices. It's an enduring issue, shaping lives into adulthood.

This report – a collaborative effort between UNICEF and Mainland Tanzania's National Bureau of Statistics (NBS) – employs the robust Multiple Overlapping Deprivation Analysis (MODA) methodology, which delves beyond traditional measures to capture the complexity of child poverty. Our goal is to inform policies and programmes, aligning with the Sustainable Development Goals and improving the lives of Mainland Tanzania's children.

The report reflects a decade of progress across multiple dimensions of wellbeing, and highlights the need for early investments in children to develop skilled and healthy citizens of the United Republic of Tanzania. To this end, Productive Social Safety Net and other social assistance programmes, such as a universal child grant, represent effective tools to reduce inequalities and have the potential to significantly reduce multidimensional and monetary child poverty.

This report provides actionable recommendations on how to improve the collection of better data: data plays a crucial role in better understanding the needs and barriers faced by children and their families, and informs policy development and decision-makers.

Finally, this report unveils more than numbers: it shares stories of resilience, hopes and dreams, and the challenges our children face. It's a call to action, an invitation to unite in securing every child's opportunity to thrive. Together, we can forge a brighter future for our children and our nation.

Albina Chuwa
Statistician General
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1 Introduction

Poverty hampers children's development, their educational outcomes and job prospects, their health and their life choices, often resulting in chronic intergenerational transmission of poverty. Ending child poverty is crucial for both fulfilling the rights of every child and the future economic and social development of Tanzania. If not effectively addressed, poverty prevents children from achieving their full potential and undermines national growth.

The transition from the United Nations' 2015 Millennium Development Goals to the 2030 Sustainable Development Goals (SDGs) reaffirms a strong commitment to tackling poverty in all its dimensions and addressing child poverty. Children can experience poverty even when their household income is above the poverty line; therefore, while monetary poverty provides a vital measure of child poverty and vulnerability, it does not sufficiently capture the nature and extent of material and social deprivations suffered by children and their families.

Measuring multidimensional (MD) child poverty effectively requires recognizing the importance of needs that are key to children's well-being beyond those reflected by monetary indicators such as income and expenditure. The so-called 'multidimensional approaches', using indicators of wider deprivation and unmet needs, are now recognized by United Nations agencies and the World Bank as important

complements to monetary measures of poverty (World Bank, UNICEF and UNDP, 2021). Researchers and policymakers have long recognized the value of combining information from monetary and non-monetary approaches to show how families can be exposed to the dangers of poverty from a position of low income and one of unmet basic needs. Such analysis uses data designed with children's particular needs in mind and holds great potential to yield a more coherent set of policy recommendations. This enhanced approach to poverty analysis enriches the discussion of poverty trends by drawing attention to aspects of poverty and well-being neglected by the simple construction of poverty indicators based on consumption expenditure, i.e., monetary poverty.

This report aims to assess the nature and extent of MD poverty and to reflect on how its patterning evolved between 2007 and 2018 using microdata from the Mainland Tanzania Household Budget Surveys (HBSs) for 2006/07, 2011/12 and 2017/18.

It begins by setting out the conceptual and measurement framework adopted for the analysis and explains (in Chapter 2) the data used, selection of key variables and development of the final index to reflect the prevalence and patterning of child MD poverty in Mainland Tanzania between 2007 and 2018. Chapter 3 begins with a presentation of trends in child poverty in Mainland Tanzania, using official estimates in National Bureau of Statistics (NBS) reports. This is then followed by the analysis of the HBS microdata to show trends between 2007 and 2018 for several different dimensions of deprivation (i.e., housing, communication, water and sanitation, education and health) presenting results by place of residence (urban/rural), zone and other key characteristics. Overlaps with monetary poverty are also provided. Chapter 4 is a more focused assessment of the patterning of child MD poverty in Mainland Tanzania in 2018 and includes additional information on protection and nutrition deprivations for children in 2018. Chapter 5 and Chapter 6 discuss policy suggestions and potential ways to improve MD poverty measurement using internationally validated methods and exploring how these might be incorporated into future surveys by the NBS.

This report shows how prevalence rates of deprivation for important basic needs among children have fluctuated. While the picture is one of general progress, there are areas that require attention. The United Nations Children's Fund's (UNICEF's) Multiple Overlapping Deprivation Anaylsis (MODA) framework is used to capture the deprivation of various goods and services crucial for children's survival and development (de Neubourg et al., 2012). Not all MODA indicators are available in the three HBSs, so the main contribution of this report is to provide robust and, where possible, comparable estimates of changes in MD poverty between 2007 and 2018 by drawing on the expertise of and work by Tanzania's NBS, which includes the collection and standardization of the HBSs. This means that estimates of MD child poverty may not be comparable with previous Mainland Tanzania reports that used different data sets and the wider set of indicators that were available in a given year. However, the indicators analysed allow policymakers to understand where progress has occurred and where it has stalled in the last 10 years.

Researchers and policymakers have long recognized the value of combining information from monetary and non-monetary approaches to show how families can be exposed to the dangers of poverty from a position of low income and of unmet basic needs.

1.1 Main findings

Analysis of the HBS data for 2007, 2012 and 2018 showed that MD poverty among children fell from 79 per cent in 2007 to 31 per cent in 2018. This pattern mirrored similar declines in child monetary poverty, which dropped from 37 per cent in 2007 to 30 per cent in 2018. The proportion of children who experienced both monetary and non-monetary poverty (i.e., a subset of those referred to above) fell from 34 per cent to 13 per cent in 2018.

There were evident disparities between zones of Mainland Tanzania. Roughly 35 per cent of all children in the Lake Zone are either multidimensionally or monetarily poor, compared to 20 per cent in the Coastal Zone. Children in rural areas were almost always more likely to be monetarily and multidimensionally poor. Children in households where the head reported not receiving any education were significantly more likely to be monetarily and multidimensionally poor.

Compared to 2007, children in Mainland Tanzania in 2018 benefited from considerable improvements. They were more likely to live in homes made from appropriate materials (74 per cent deprived in 2007 to 58 per cent deprived in 2018) and to have access to an improved toilet (from 96 per cent deprived in 2007 to 78 per cent deprived in 2018), less likely to live far away from a source of water (a decrease in deprivation from 28 per cent to 14 per cent) and more likely to have access to an improved one (from 50 per cent to 33 per cent without access). Their ability to communicate with the outside world via mobile phones also increased considerably (communication deprivation decreased from 76 per cent in 2007 to 20 per cent in 2018). Younger children (7–12 years old) were more likely to be enrolled in school, less likely to be behind in education and had better literacy levels.

However, a significant proportion of Tanzania's children remained (in 2018) exposed to deprivation of important basic needs. Overcrowding in housing is very widespread and has remained unchanged between 2007 and 2018, affecting 71 per cent of children. Moreover, although there have been improvements in all dimensions analysed, levels of water and sanitation and housing deprivation are still very high, with 78 per cent of children living in dwellings without improved sanitation and a third unable to access improved water sources throughout the year. Progress in the education dimension for older children is also unclear with some evidence that enrolment, attendance and literacy have declined among children above the age of 12 years.

Compared to 2007, children in Mainland Tanzania in 2018 benefited from considerable improvements.

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2 Conceptual and measurement framework

Conventional monetary measures of poverty that use either household income or expenditure data are recognized to 'miss' several important 'dimensions' or aspects of poverty that people worldwide are exposed to daily and that affect their quality of life and living standards. These aspects include elements that cannot easily be monetized, such as participation in important customary activities and social and caring obligations.

Monetary measures are also limited in their capacity to reflect the lived experience of children, since they are designed to reflect adult poverty. Following near global ratification of the 1989 United Nations Convention on the Rights of the Child (UN, 1989), the 2006 United Nations General Assembly's agreement on an international definition for child poverty, and SDGs, which call for poverty 'in all its dimensions' to be tackled with urgency for children and adults, countries and agencies like UNICEF and the World Bank are required to rethink how child poverty should and can be assessed, reflected and located within the policy space (World Bank, UNICEF and UNDP, 2021).

As part of this reconsideration, effort has gone into developing indicators and measures that are designed with the needs and rights of children in mind. UNICEF's 2007 Global Study of Child Poverty and Disparities initiative (UNICEF, 2007) was built on the pioneering work of sociologist Professor Peter Townsend (see Gordon et al., 2003). His theory of relative deprivation identified people as poor when

The MODA tool has been used successfully by UNICEF's Office of Research to examine MD poverty among children.

they lack 'sufficient command over resources' to participate in the customary norms and lifestyles of their societies at the time. This concept underpins most internationally accepted definitions of poverty and implies that poverty changes over time and across populations (Townsend and Gordon, 2002) owing to its relative nature.[1] This concept of poverty has seen poverty measures developed at the individual rather than household level and provided policymakers with disaggregated, 'decomposed' data relevant to programme development and delivery.

UNICEF's Office of Research built on the success of the Global Study to develop its own child MD poverty measurement tool, MODA. MODA examines both the prevalence and overlap of several child-relevant deprivations applicable across the life course, such as food/nutrition, education, health (care), information, water and sanitation, housing and other country-specific deprivation dimensions. Importantly, where data permit,[2] MODA can be used to examine the overlap between monetary and non-monetary poverty indicators.

The MODA tool has been used successfully by UNICEF's Office of Research to examine MD poverty among children. This study employed this methodology for Mainland Tanzania, using existing data from the HBSs. There are, of course, other methodologies that have been developed in recent decades to focus on the measurement of child poverty, including the Bristol Deprivations Approach (Gordon et al., 2003) and the Oxford Poverty and Human Development Initiative's Multidimensional Poverty Index, each with their strengths and limitations (e.g., not incorporating measures of monetary poverty or questions about the relative weights accorded to different dimensions and sub-components).[3] Previous work on child poverty in Zanzibar and Mainland Tanzania has used the MODA tool effectively (NBS and UNICEF, 2019), and this report – using the most up-to-date survey data – continues this tradition.

The benefits of MODA include the following:

- It is explicitly designed to reflect child poverty and (importantly) is situated within UNICEF's conceptual framework of poverty as an infringement of children's rights.
- It has been tried and tested and used successfully in over 50 countries.[4]
- The results it produces are easy to understand and explain to policymakers, journalists and the general public.
- It generates policy-relevant information for planners, by identifying the presence and depth of need among children, with the child as the unit of analysis.
- The framework has already been piloted in Mainland Tanzania using 2014/15 National Panel Survey data (NBS and UNICEF, 2019) and Zanzibar 2014/15 HBS data (OCGS and UNICEF, 2019).

The HBSs contain sufficient information to compute comparable indicators to reflect the necessary dimensions required to conduct a comprehensive and longitudinal MODA for Mainland Tanzania. Importantly, the surveys include household income and expenditure data, making it possible to analyse the overlaps between household monetary poverty and non-monetary deprivations over time.

The MODA framework has been used to identify deprivation indicators most applicable to children in Mainland Tanzania, reflecting their needs and rights (e.g., a decent standard of living, education and health care). This report follows on earlier studies of MD child poverty in Mainland Tanzania and Zanzibar using data from the Demographic and Health Surveys (DHSs) and earlier rounds of the HBSs. For example,

1 This concept is reflected in the definitions of absolute and overall poverty adopted by over 100 nations at the 1995 World Summit on Social Development and has been used effectively by UNICEF, the European Union and a host of other development partners to generate realistic, easily understood indicators of basic needs deprivation among children and their families.

2 That is, researchers have often used the MODA approach with household survey data from the Demographic and Health Surveys and UNICEF's Multiple Indicator Cluster Surveys; these platforms rarely, if ever, also collect data on monetary poverty.

3 See Alkire and Roche (2012). For further discussion of the Multidimensional Poverty Index and its use, see Nájera Catalán (2019), Nájera Catalán and Gordon (2020) and Santos and Villatoro (2020).

4 For example, Chzhen et al. (2016), Ferrone and de Milliano (2018, de Milliano and Plavgo (2018) and Shabir and Ur Rahim (2017).

Minujin and Delamonica (2012) used a basic needs deprivations approach taking children as the unit of analysis in the 2004/05 Demographic and Health Survey (DHS) (NBS and ORC Macro, 2005), and found that just under two thirds (63 per cent) of children in Zanzibar were severely deprived of one or more basic human needs, compared to 88 per cent of children in Mainland Tanzania. If a different threshold (e.g., deprivation of two or more basic needs) is used, then the estimate of child poverty in Zanzibar falls to 49 per cent and 72 per cent in Mainland Tanzania. The most prevalent deprivations identified by NBS and UNICEF in Mainland Tanzania in 2014 (NBS and UNICEF, 2019), using the National Panel Survey, were housing and sanitation, in which almost 90 per cent of children were deprived.

The indicators and threshold used in this report to reflect MD child poverty may differ slightly from previous studies, which explains why the estimates presented here may differ from earlier ones. This is expected from methodologies like MODA that do not have fixed criteria on which indicators should be used or how many dimension deprivations (e.g., one or two or three or more) identify a child as multidimensionally poor. Therefore, the key messages for policymakers can be derived from the detailed analysis of each dimension and indicator and the suggestions for further data collection. All indicators in this report have been based on good social science and statistical principles and are in keeping with international guidance issued by United Nations agencies tasked with reporting on Sustainable Development Goal (SDG) target 1.2.2 (World Bank, UNICEF and UNDP, 2021). Furthermore, this report expands previous analyses by presenting estimates of both monetary and MD child poverty, as well as their overlap and changes between 2007 and 2018.

2.1 Data and methods

Data used, variable selection and final MODA composition

The MODA presented in this report has been explicitly designed to be as comparable over time as possible, using the Tanzania HBSs for the years 2006/07, 2011/12 and 2017/18. These surveys are the most authoritative (and up-to-date) data on living standards and household incomes in Mainland Tanzania, providing an excellent base with which to assess monetary and non-monetary poverty.

Following in-depth examination of the relevant variables, and their relationships to children's rights and basic needs, and inputs from the NBS and stakeholders at an inception meeting, it was decided to reflect potential deprivation across seven possible dimensions, i.e., (i) housing, (ii) water and sanitation, (iii) communication, (iv) protection, (v) education, (vi) nutrition and (vii) health, and to focus particularly on five of these dimensions – housing, water and sanitation, communication, education and health – whose underlying data are comparable across time.

Each dimension included between one and four sub-component indicators, and deprivation in any of these sub-components was sufficient to consider a child being deprived in that dimension. Sub-components were based on a combination of individual- and household-level variables:

1. **Housing**: Household-level indicators on overcrowding and dwelling construction materials.[5]
2. **Water and sanitation**: Household-level indicators on water source, time to water, and form of sanitation.
3. **Communication**: Household-level indicators on whether households have a modern means of communication, including landline or mobile telephones. This dimension reflects indicators related to Goal 6 of the SDGs (United Nations, n.d.).
4. **Education**: Individual-level indicators on school enrolment, attendance, literacy and grade for age.
5. **Health**: Individual-level indicator of whether a sick child received treatment.[6]
6. **Protection**: Individual-level indicators on birth registration and child labour (*for 2018 only*).
7. **Nutrition**: Household-level indicators of food insecurity, meal frequency and dietary diversity (*for 2018 only*).

In a few instances, some sub-component indicators were not available for an individual year, but on the whole, comparability was good for the final indicators selected (Table 1, page 15).

Indicators based on individual-level data (e.g., education) were computed for the appropriate age groups,[7] and household-level variables were assigned to all household members. Missing data represented a small percentage of all eligible responses and were therefore not considered an issue. Indicators were grouped into dimensions (e.g., education). In the case of the water and sanitation dimension, these indicators were grouped together, in line with SDG 6, as this will aid reporting progress in the future. To err on the side of caution, all respondents with missing data were counted as not deprived when counting the number of indicator deprivations in each dimension (leading to conservative estimates of deprivation). Following previous MODAs, an equal weighting approach was adopted, where a child was categorized as deprived in a given dimension if he or she showed deprivation in any of the dimension indicators. The threshold for determining multidimensionally poor children was set at three or more dimensions. Results using different thresholds were inspected and the overall results remained consistent (i.e., Mainland Tanzania experienced decreases in MD poverty).

5 The housing dimension indicator has, in the past, included the type of cooking fuel; however, given almost universal prevalence of the use of polluting fuels across Mainland Tanzania, it was decided to exclude cooking fuel from the indicator, to allow for some differentiation of other housing deprivation elements across socioeconomic groups.

6 The data available in the HBS that reflect 'health deprivation' in a meaningful sense are limited; other sources of data, like the DHS, which include information about children's contact with public health services, for example, through receipt of basic vaccinations, may be more reliable to understand 'health deprivation' in a fuller, more comparable sense. In 2015/16, DHS data showed that 75 per cent of children aged 12–23 months in Tanzania received all eight vaccinations recommended by the World Health Organization (WHO) Expanded Programme of Immunization. Around half the number of children who reported having diarrhoea prior to the survey received treatment in the form of either oral rehydration solution or recommended home fluids. See <https://dhsprogram.com/pubs/pdf/FR321/FR321.pdf>.

7 All children of an age outside the relevant age bracket of age-specific indicators are considered not deprived. This means that with regard to education, young children are set as not deprived as they may be too young to have started school. This is primarily due to the lack of reliable data on preschool education and may understate the nature and extent of education deprivation among the very young. Similarly, all children younger than 16 years are considered not deprived in the school attendance indicator.

Table 1: Dimensions and sub-components for Mainland Tanzania MODA

Dimension	Indicator	2007	2012	2018
Housing	**Overcrowding** Households with a room occupancy of more than two adult equivalents per room	✓	✓	✓
	Building materials Dwellings with floors made of earth or palm bamboo; roofs of mud, grass or plastic; or walls of mud or grass	✓	✓	✓
Water and sanitation (SDG 6)	**Water source** Households using unimproved water sources (e.g., rivers/dams/lakes, unprotected wells and/or springs)	✓	✓	✓
	Time to water The time taken to collect water for the household (in dry or wet season) is more than 30 minutes	✓	NA	✓
	Sanitation facility Households using unimproved sanitation facilities (e.g., no facilities, seashore/bushes, open pit latrines without slabs) or sharing facilities with other households	✓	✓	✓
Communication	**Form of communication** Households have access to neither landline nor mobile telephone	✓	✓	✓
Education	**School enrolment** Children of school age (7–17 years) were not currently attending school	✓	✓	✓
	School attendance Older children (16–17 years) have never attended school	✓	✓	✓
	Literacy[8] Children of school age (9–17 years) reported not being able to read and write in any language or were not able to read a full sentence in either English or Swahili if tested	✓	✓	NA
	Grade for age Children (9–17 years) were more than two years over the regular/expected age for their current grade	✓	✓	✓
Health	**Untreated illness** A child who had a recent illness[9] failed to receive medical care or advice	✓	✓	✓
2018 only				
Nutrition (2018 only)	**Meal frequency** Households usually consumed fewer than three meals a day	NA	NA	✓
	Dietary diversity Households consumed fewer than 3 out of 10 food groups	NA	NA	+
Protection (2018 only)	**Birth registration** A child's birth had not been formally registered, and/or parents reported that they did not have birth certificates for their children	✓	✓*	✓
	Child labour A child (under 18 years of age) was economically active or absent from school due to having to work[10]	✓	✓*	+

Note: Nutrition and protection dimensions were not included in the MODA 2007–2018 trend analysis, but are discussed for 2018 in Chapter 5.
* Improbable value considering estimates for 2007 and 2018
+ Improbable and very low value (less than 2 per cent)
NA = not available
Source: Authors

8 The literacy indicator is not strictly comparable between 2012 and 2018, as no data on literacy (question S6_2) are available for children below the age of 14 years in 2018.
9 These included illnesses like malaria, diarrhoea, anaemia, pneumonia, eye or skin diseases and accidents.
10 This is likely to underestimate child labour because of the limited information on the nature of work and unpaid work in the HBS. Child labour as well as child labour conditions can be further investigated using the Tanzania Integrated Labour Force Survey, which in 2006 (Tanzania Ministry of Labour, Employment and Youth Development et al., 2007) and 2014 (Department for International Development et al., 2015) included the specialized module known as the Child Labour Survey. Further recommendations are provided in Appendix 1.

The percentage of children who experienced one or more deprivations decreased from 99 per cent in 2007 to only 94 per cent in 2018, which suggests that MD poverty is still very prevalent in Mainland Tanzania, whereas the percentage of children who experienced deprivations across multiple dimensions (three or more) decreased considerably.

Nevertheless, the percentage of children who experienced one or more deprivations decreased from 99 per cent in 2007 to only 94 per cent in 2018, which suggests that MD poverty is still very prevalent in Mainland Tanzania, whereas the percentage of children who experienced deprivations across multiple dimensions (three or more) decreased considerably (from 79 per cent in 2007 to 31 per cent in 2018). This finding is discussed further in the next section, and individual dimensions and indicators are inspected to show which indicators are driving dimension deprivation.

Information on consumption was also used to calculate the percentage of children in monetary poverty and to explore the relationship between monetary poverty and MD poverty. Consumption, calculated by the NBS for each Mainland Tanzania HBS, includes everything purchased and consumed over 28 days in sampled households. This covers records on food and non-food items that were purchased, as well as food that was grown by the household. This was then converted into Tanzanian shillings (TZS), adjusted by household size and age and sex of household members,[11] and then used to measure the overall economic welfare. The NBS uses two different poverty lines: basic needs poverty (generally referred to as poverty or monetary poverty) and food poverty (also referred to as extreme poverty). The poverty line for food poverty is lower than the one for monetary poverty, so by definition all food-poor households and all children within them are also (monetarily) poor. The analysis in this report focuses on basic needs poverty, calculated using NBS updated official monetary poverty thresholds. All selected indicators showed a positive association with monetary poverty, meaning that children in monetary poverty were more likely to be deprived of every single indicator, as shown in Figure 1 (page 17). These associations were tested using all three HBS surveys to provide a larger sample size and were all statistically significant at the 5 per cent level, with the exception of the health dimension indicator and the education dimension's school attendance indicator, both of which, however, showed a clear negative relationship with consumption quintiles, meaning that households with higher levels of consumption are less likely to be deprived.

Given recent changes in the composition and number of regions in Tanzania, this report also presents results using the following harmonized geographical zones for Mainland Tanzania:[12]

- **Coastal** – Dar es Salaam, Morogoro, Pwani, Tanga
- **Northern Highlands** – Arusha, Kilimanjaro, Manyara;
- **Lake** – Geita, Kagera, Kigoma, Mara, Mwanza, Shinyanga, Simiyu, Tabora
- **Central** – Dodoma, Singida
- **Southern Highlands** – Iringa, Katavi, Mbeya (and Songwe in 2018), Njombe, Rukwa
- **South** – Lindi, Mtwara, Ruvuma.

Challenges in the selection of indicators

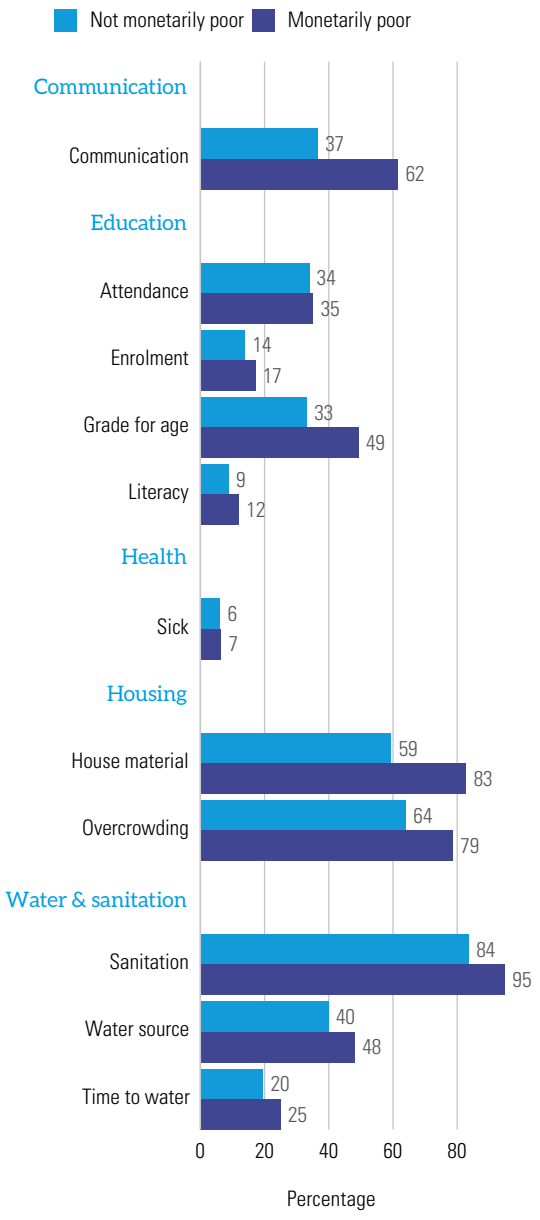
The final list of indicators in Table 1 (page 15) is the result of a long process which involved input and consultation with the NBS to provide robust and comparable estimates of changes in indicators between 2007 and 2018. Comparable data availability was the main limiting factor. Appendix 2 provides further details on the indicators that could not be created for this analysis because of data limitations.

11 To account for the fact that, for example, a single-person household requires less consumption than a household with two adults and three children.

12 Regional maps are also provided for 2018.

This thorough exploration of the data comparability across the three HBS data sets was only possible with the advice and collaboration of NBS staff, who were an invaluable resource throughout the process. In Chapter 6 and in Appendix 1, dimension-specific knowledge and data gaps are identified and suggestions are made for additional indicators that will inform future data collection by the HBS to obtain further insights into the extent and causes of MD poverty.

Figure 1: Percentage of children deprived of each dimension indicator by monetary poverty status in Mainland Tanzania, 2007, 2012 and 2018 (pooled samples)



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)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3 Trends in monetary and MD child poverty

3.1 Child monetary poverty in Mainland Tanzania

This initial section presents what is known about the extent and patterning of child monetary poverty in Mainland Tanzania between 2007 and 2018. The monetary poverty data presented here relate to basic needs poverty and are calculated from HBS data for the 2007, 2012 and 2018 rounds.

The official food poverty line (TSh33,748 per adult per month in 2018) is based on the cost of a food basket that delivers 2,200 calories per adult per day. This is considered adequate to meet the energy needs for maintaining a healthy life and carrying out light physical activity. Consumed quantities are converted into calories using calorie conversion factors and valued at national median prices. The basic needs poverty line, referred to as the monetary poverty line in this report, also allows for basic non-food goods and was TSh49,320 in 2018 (NBS, 2020). Between 2007 and 2018, child monetary poverty decreased from 37 per cent to 30 per cent (Table 2).

Table 2: Basic needs child monetary poverty headcount rate in Mainland Tanzania, 2007–2018

	2007	2012	2018
Percentage children	37	32	30

Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Between 2007 and 2018, child monetary poverty decreased from 37 per cent to 30 per cent.


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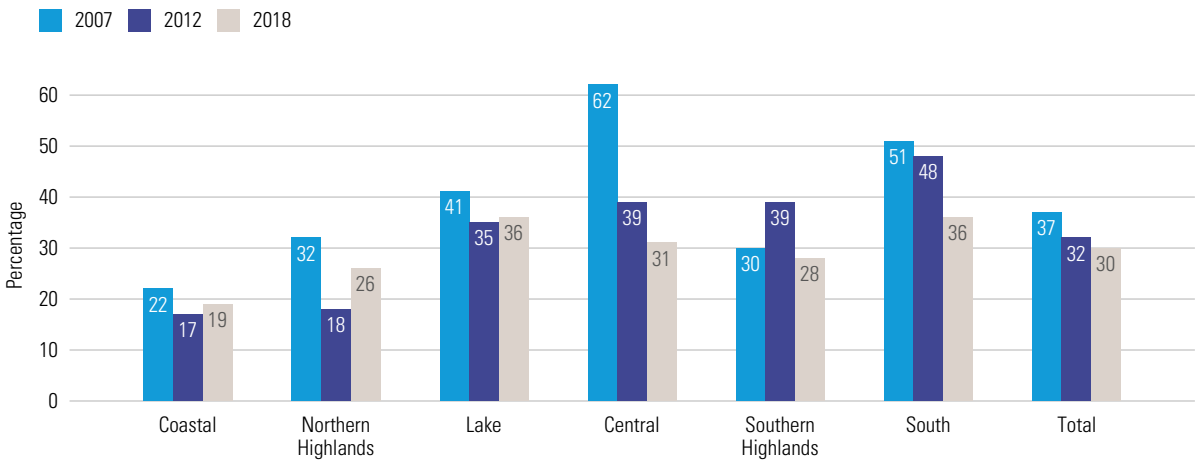
Disaggregating child monetary poverty data – geography

Figure 2 shows the changes in rates of child monetary poverty between 2007 and 2018 across zones of Mainland Tanzania, calculated from HBS data. It is apparent that rates of child monetary poverty behaved in several ways. Firstly, there were zones with a consistent decline over the decade (Central and South). Secondly, in the Southern Highlands, a decline between 2012 and 2018 followed an increase between 2007 and 2012, meaning that little overall improvement occurred over the decade. Lastly, poverty in some zones stalled or increased in 2018, following a decline between 2007 and 2012 (Coastal, Northern Highlands and Lake). Overall, the Central Zone saw the largest overall decline, while the Southern Highlands zone experienced little or no change.

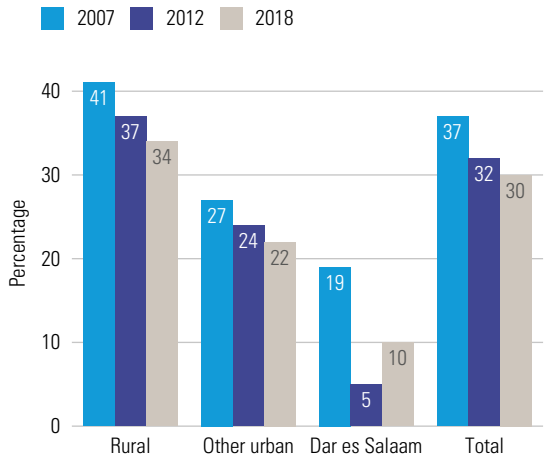
When the data are disaggregated by place of residence (Figure 3, page 21), i.e., Dar es Salaam, other urban areas and rural areas, distinct differences emerge. Child monetary poverty rates fell across all areas between 2007 and 2018, but progress was mixed. Poverty nearly halved in Dar es Salaam over the period, but between 2012 and 2018 it effectively doubled, from 5 per cent to 10 per cent. In other urban areas and in rural areas poverty rates were higher, but these areas witnessed sustained declines over the decade.

Figure 2: Child monetary poverty headcount (percentage) by zone, 2007–2018



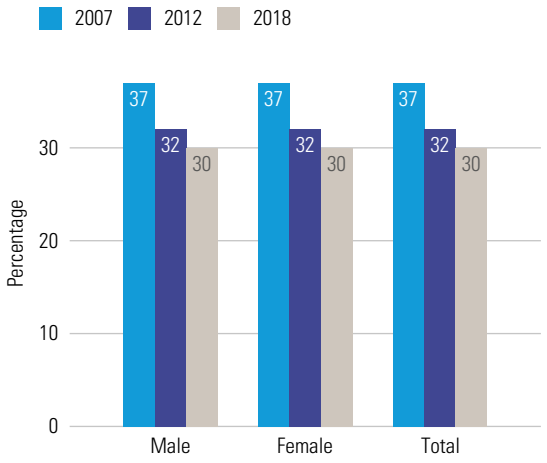
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 3: Child monetary poverty headcount (percentage) by place of residence, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 4: Child monetary poverty headcount (percentage) by sex, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

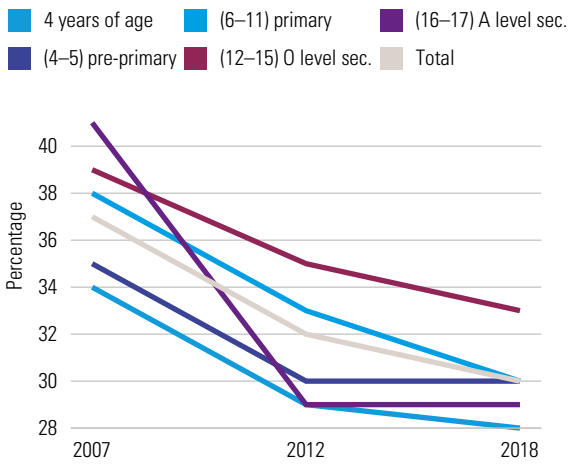
Disaggregating child monetary poverty – child and household characteristics

While geographic differences are apparent, they are less noticeable at the levels of child and household characteristics. Across each round of the HBS, gender differences in basic needs poverty between children were negligible, with similar reductions over the 2007–2018 period for boys and girls (Figure 4).

Figure 5 shows rates of monetary poverty in different age groups for children. In general, the youngest children had the lowest rates of poverty and older children had higher rates across the three survey years. This figure illustrates part of the problem of using monetary poverty as an indicator of child poverty since it fails to reflect the different needs of children across the different stages of their life course. Older children may need items that require a greater share of household resources (e.g., materials for school or socializing with their peers), while younger children's needs centre around visits to the health-care centre, early childhood education and more basic items such as nappies and milk powder. These important differences cannot be adequately reflected or accounted for by monetary measures.

When data on child monetary poverty are presented according to the education level and sex of the head of the household, much larger group differences are observed.

Figure 5: Child monetary poverty headcount (percentage) by age group, 2007–2018

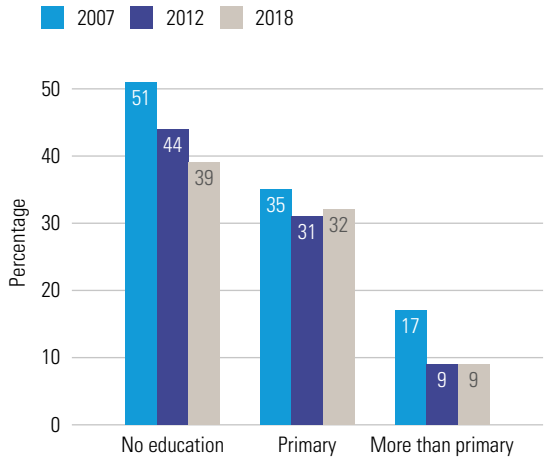


Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

In most analyses of poverty, the education of the head of household is taken as a proxy measure of socioeconomic status, with the expectation that more-educated household heads are likely to have secured a better job and thus resources for the household, thereby reducing the household's chance of being poor. As Figure 6 (page 22) shows, in 2018, there was a clear gradient in poverty rates, with those children in households where the head had more than

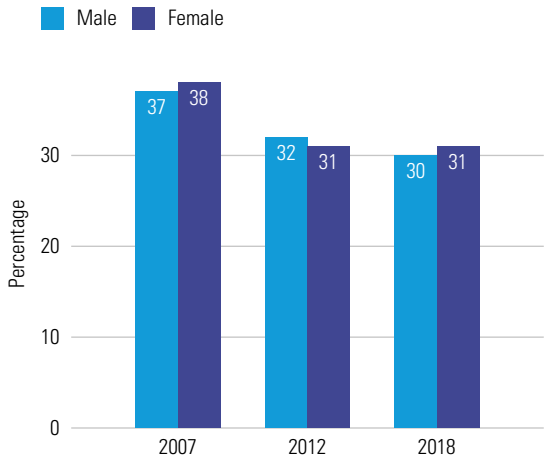
a primary education much less likely to be monetarily poor (9 per cent) compared to those whose head had no education (39 per cent). Over time, the greatest relative reductions in child poverty rates were among those households where the head had more than a primary education (47 per cent decrease, compared to a 24 per cent decrease for those where the head had no education). Overall, the pattern of child monetary poverty and education levels holds as one would expect. It is worth noting that for children in households whose heads reported no education there was a sustained decline in child monetary poverty across the decade, but not so for children whose household heads reported either primary or more than primary education, where reductions in poverty levelled off after 2012.

Figure 6: Child monetary poverty headcount (percentage) by education of head of household, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 7: Child monetary poverty headcount (percentage) by sex of head of household, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Differences in child poverty in terms of the sex of the head of household (Figure 7) were not pronounced across each survey year.

Good progress was made in reducing child monetary poverty in Mainland Tanzania between 2007 and 2018, with a relative decline of 23 per cent. When the data are disaggregated by place of residence, zone and household- or individual-level characteristics, interesting patterns of progress, regress and inertia become apparent.

Policymakers in different ministries, such as health, education and housing, need clear information on how and where people lack access to key services. Poverty in its very nature is 'multidimensional' and, as such, measures of MD poverty need to be policy-relevant and actionable. Data on how many children are out of school, not receiving adequate health care or living in households lacking access to safe water and sanitation are of more direct use than information on household-level estimates of resources falling under an arbitrary threshold that may not adequately explain why people lack access to basic services. More importantly, such measures and thresholds often fail to consider the needs of children and, as such, misrepresent the nature and extent of child poverty in Mainland Tanzania today. The following section sets out a measure of MD child poverty developed with children as the unit of analysis and their needs at the forefront of the design of indicators.

3.2 Child MD poverty in Mainland Tanzania

Figure 8 (page 23) shows that both monetary and MD child poverty have decreased substantially between 2007 and 2018 in Mainland Tanzania. The percentage of children who experienced deprivation in three or more dimensions (up to a

total of five) dropped from 79 per cent to 31 per cent between 2007 and 2018. Figure 8 also shows the percentage of children who experienced monetary poverty, which followed a similar trajectory to that of children's experience of MD poverty, decreasing from 37 per cent to 30 per cent in 2018. The percentage of children who experienced joint MD and monetary poverty also dropped from 34 per cent to 13 per cent.

Although this is a remarkable change over a period of just 10 years, it is important to point out that these overall findings show that 31 per cent of all children are still experiencing deprivation in at least three out of five dimensions. These dimensions aim to measure children's basic needs but, as argued in this report, generally underestimate the level of deprivation in the health dimension. Moreover, the MD poverty headcount, which includes all comparable dimensions between 2007 and 2018, does not include protection and nutrition dimensions and therefore underestimates MD poverty.

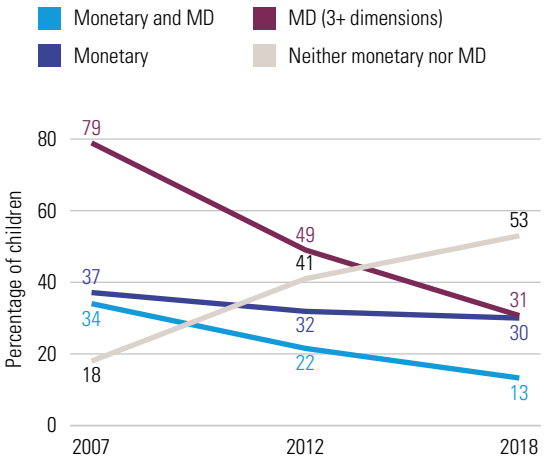
Despite these measurement shortcomings, roughly a third (31 per cent) of all children are experiencing three or more deprivations simultaneously, which should be a matter of great concern. Moreover, it is important to note that, although there have been reductions in MD poverty using a cut-off of three or more deprivations, the vast majority (94 per cent) of children in Mainland Tanzania in 2018 experienced deprivation in at least one of the five dimensions explored in this report (Table 3), regardless of whether they lived in households considered monetarily poor.[13]

Table 3: Trends in the percentage of multidimensionally poor children by different thresholds, 2007–2018

Year	Number of dimensions			
	One or more	Two or more	Three or more	Four or more
2007	99	95	79	29
2012	97	87	49	12
2018	94	79	31	5

Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 8: Trends in MD and monetary poverty, 2007–2018

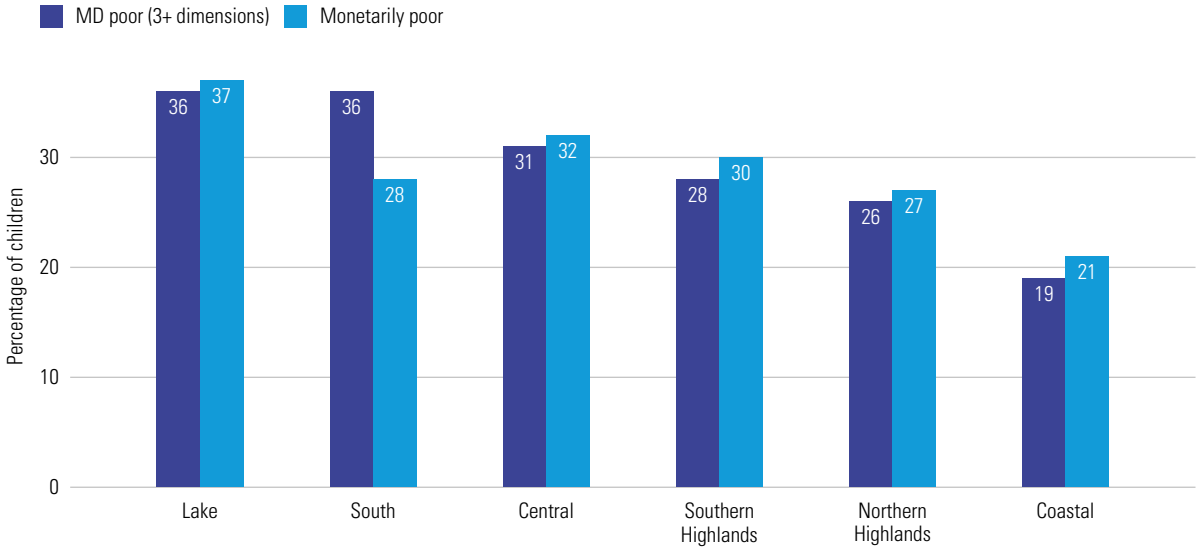


Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

13 Specifically, 99 per cent of children living in monetarily poor households experienced one or more deprivations, compared to 92 per cent of children who lived in households above the monetary poverty line.

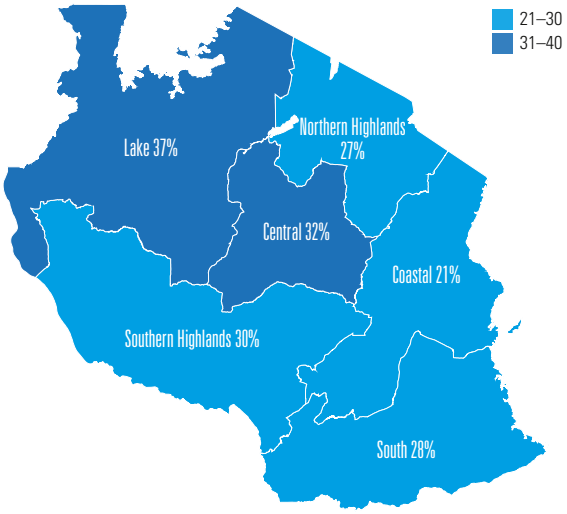
Finally, although this decrease in poverty has been witnessed across zones, the situation varies considerably, with roughly 35 per cent of all children in the Lake Zone either multidimensionally or monetarily poor in 2018, compared to 20 per cent in the Coastal Zone (Figures 9–15 below).

Figure 9: Percentage of poor children by zone in Mainland Tanzania, 2018



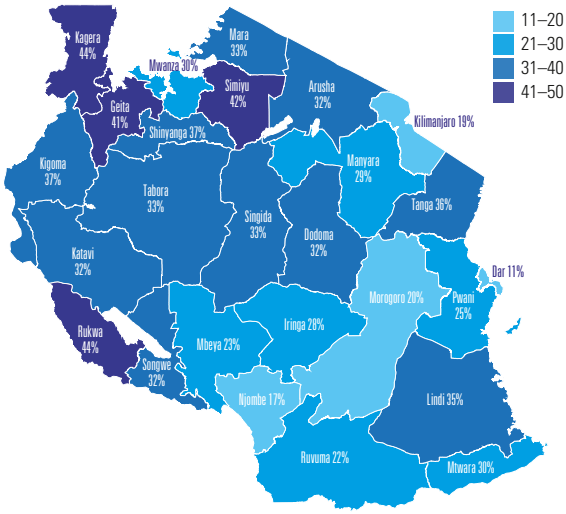
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 10: Percentage of children in Mainland Tanzania in MD poverty (three or more dimensions), by zone, 2018



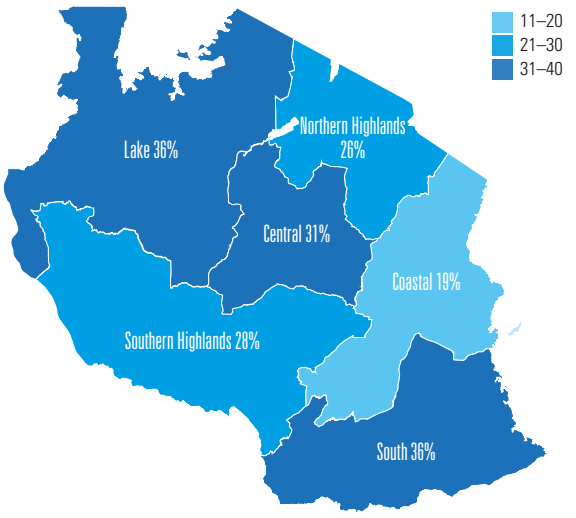
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 11: Percentage of children in Mainland Tanzania in MD poverty (three or more dimensions), by region, 2018



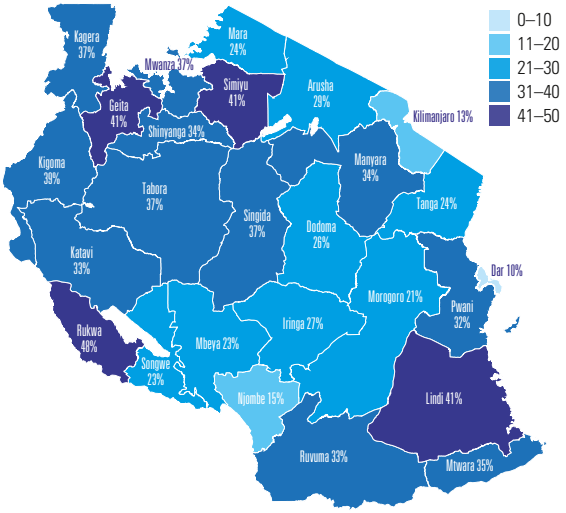
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 12: Percentage of children in Mainland Tanzania in monetary poverty, by zone, 2018



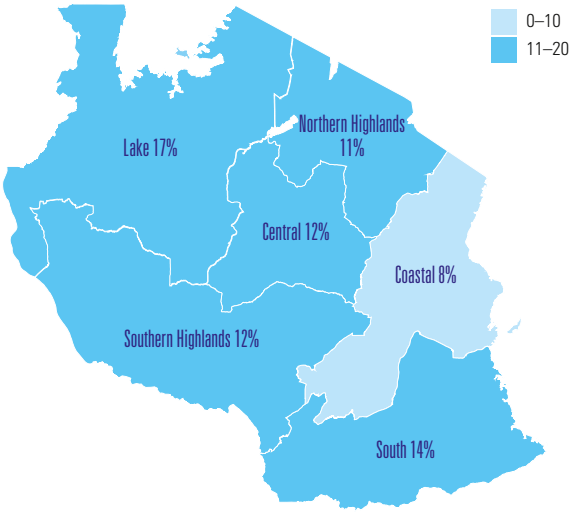
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 13: Percentage of children in Mainland Tanzania in monetary poverty, by region, 2018



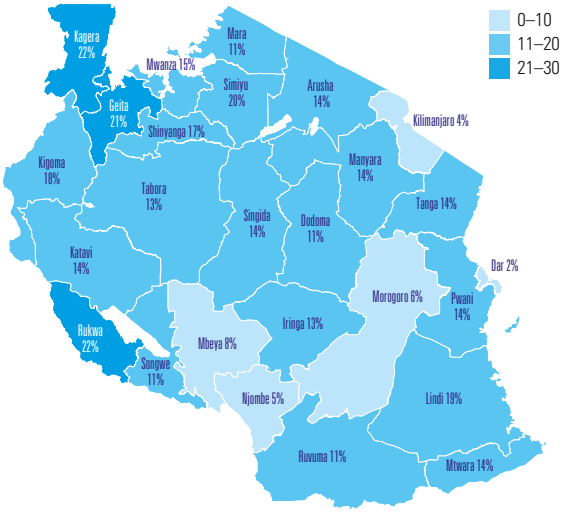
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 14: Percentage of children in Mainland Tanzania in MD and monetary poverty, by zone, 2018



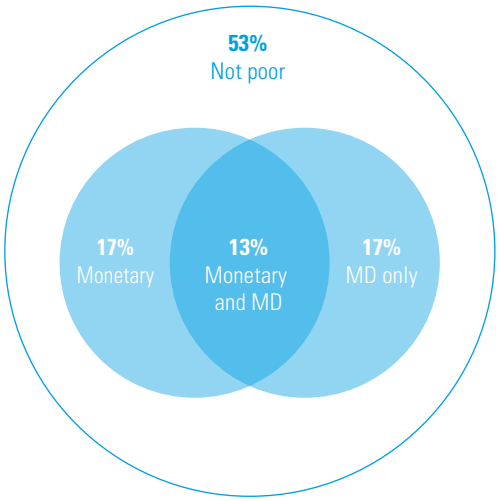
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 15: Percentage of children in Mainland Tanzania in MD and monetary poverty, by region, 2018



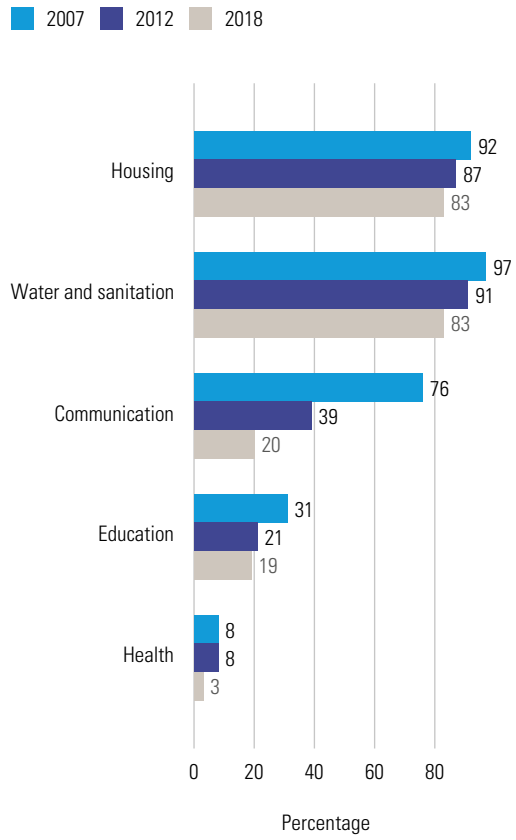
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 16: Prevalence and overlap between child monetary and MD poverty (three or more dimensions) in Mainland Tanzania, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 17: Trends in deprivation by dimension in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Although the overall reduction in poverty is clear when using the Mainland Tanzania official poverty line (monetary poverty) and the MD poverty threshold (3 or more out of five dimensions), almost half of all children (47 per cent) experienced either only monetary poverty or only MD poverty, or a combination of both, as shown in Figure 16. Thirteen per cent of children experienced both monetary and MD poverty and these are the most vulnerable in Mainland Tanzania. As Figure 8 (page 23) shows, the percentage of children jointly affected by monetary and MD poverty has decreased considerably, from 34 per cent in 2012 to 13 per cent in 2018, and the percentage of children who experienced neither has increased from 18 per cent in 2012 to 53 per cent in 2018. Furthermore, the percentage of children who are only multidimensionally poor or only monetarily poor has also decreased, from 48 to 34 per cent, over this period.

3.3 Overall trends by dimension

Figure 17 shows how the prevalence of deprivation across each dimension has changed over time in Mainland Tanzania, while Figure 18 (page 27) shows trends in the underlying dimension-specific indicators and whether the changes between 2007 and 2018 are statistically significant. The dimensions with the highest deprivation in Mainland Tanzania in 2018 are housing (83 per cent) and water and sanitation (83 per cent). The most marked improvement is observed in the communication dimension, which decreased from 76 per cent in 2007 to 20 per cent in 2018. Rates of health deprivation fell from 8 per cent in 2007 to 3 per cent in 2018, suggesting widespread availability of health care for children in need in Mainland Tanzania, but also the need to monitor this dimension alongside other indicators, such as anthropometric failure, in future HBSs. These estimates are very likely to underestimate health deprivation as they do not consider whether children were able to visit a health facility, dentist, optician or specialist, or whether they were able to obtain the required medication to treat the illness. The survey also lacks information on whether children received essential vaccines such as those prescribed in SDG 3 on good health and well-being.

Figure 18: Trends in deprivation prevalence by indicator in Mainland Tanzania, 2007–2018

Note: SS = Statistically significant change between 2007 and 2018 ($p \leq 0.001$); NS = Not significant
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Progress has also been made in the education dimension, where deprivation fell from 31 per cent in 2007 to 19 per cent in 2018. This overall decrease is due to decreases over the period 2007 to 2018 in the percentage of children over the age for their grade, which fell from 51 per cent to 31 per cent; the percentage of those not enrolled, which decreased from 19 per cent to 14 per cent; and literacy deprivation, which dropped from 14 per cent to 6 per cent (Figure 18). It is worth noting that assessments of deprivation across health and education dimensions are based on individual child-level data and are thus not reliant on household-level data which in some instances may mask intra-household inequalities.

As already noted, there was an impressive decline in communication deprivation, from 76 per cent in 2007 to 20 per cent in 2018, driven most likely by rapid expansion in access to mobile telephones (Figure 18); the 2015/16 DHS reported 78 per cent of households in Mainland Tanzania having a mobile telephone (Tanzania Ministry of Health, et al., 2016).

Progress is less pronounced, however, for those dimensions that affect far larger proportions of children. An examination of the housing dimension (which reflects aspects such as overcrowding and unimproved house materials) reveals that the proportion of children who live in overcrowded dwellings (71 per cent) has remained unchanged between 2007 and 2018 (Figure 18). Household living conditions (e.g., overcrowding and suitable construction materials) are critical determinants of child health and survival, and are set out as fundamental rights in the United Nations' Convention on the Rights of the Child (UN, 1989), yet the percentage of children living in unimproved housing (with floors of earth or palm bamboo; or roofs of mud, grass or plastic; or walls of mud or grass) is still high

(58 per cent). Although there has been progress in the housing dimension, deprivation in this dimension remained high, affecting 83 per cent of children in 2018 (Figure 17, page 26).

With regard to water and sanitation (which reflect aspects such as source of water, time to collect water and form of sanitation), the proportion of children deprived in this dimension decreased from 97 per cent in 2007 to 83 per cent in 2018. Figure 18 (page 27) demonstrates that high levels of water and sanitation deprivation are driven primarily by sanitation deprivation, with 78 per cent of all children in Mainland Tanzania deprived of access to improved sanitation in 2018. A third of all children also lacked access to improved water sources, while a minority (14 per cent) lived more than 30 minutes away from their main water source.

The fact that such a large proportion of Mainland Tanzania's children are deprived in these critical dimensions should be a source of ongoing concern and should form an important element of any child-relevant measure of child poverty going forward.

Children in Mainland Tanzania can experience a wide range of combinations of different deprivations. The correlation between dimensions is generally low,[14] except for water and sanitation and housing, which is primarily explained by a higher-than-average correlation between house material and sanitation indicators. This means that children living in houses made of unimproved materials in Mainland Tanzania are disproportionately more likely to live in households without improved sanitation and vice versa. Nevertheless, even a correlation of 0.6 is still considered low in many disciplines and does not show that these deprivations always occur together. Indeed, these findings suggest that overall, these dimensions need to be addressed with bespoke policies. This is addressed in Chapter 5.

The lack of strong correlation should not be mistaken for lack of clear deprivation patterns. Virtually all children (98 per cent) experiencing MD poverty (three or more deprivations) in 2018 in Mainland Tanzania experienced both water and sanitation and housing deprivations (Table 4), despite the progress that has been made in the last decade. Reducing deprivation in these two dimensions is identified as one of the key challenges for the future of Mainland Tanzania's children.

Considering the overall trend of MD child poverty in Mainland Tanzania, the following sections examine deprivation trends in greater detail using three standardized cross-breaks: the place of residence (urban/rural), zone of residence, and monetary poverty status (relative to the year of the survey). Data are presented in order of the most prevalent deprivation in 2007.

Table 4: Composition of children experiencing MD poverty (deprived in three or more dimensions) in Mainland Tanzania, 2018

Types of deprivation experienced by poor children	Percentage	Cumulative percentage
Housing; water and sanitation; and communication (no other dimension)	42.5%	42.5%
Housing; water and sanitation; and education (no other dimension)	35%	77.5%
Housing; water and sanitation; and education or communication (no other dimension)	11.6%	89%
Other types (including both water and sanitation and housing)	9%	98%
Other types (not including both water and sanitation and housing)	2%	100%

Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

14 The authors inspected tetrachoric correlations between dimensions for all children, which were below 0.4 for all dimensions, except for the housing and water and sanitation dimensions, which showed a correlation of 0.6. This exercise was repeated for children in MD poverty (experiencing deprivation in three or more dimensions). The correlations among the latter are higher, but this is to be expected because focusing on children who are experiencing three or more deprivations simultaneously artificially inflates the correlation between dimensions. Nevertheless, even within this subset of children, correlations were generally low.

3.4 Trends in deprivation in the housing dimension

Access to decent housing is a fundamental determinant of children's living standards and their chances of growing up safely and healthily. Indicators of housing deprivation can take several forms, including information about tenancy security, levels of overcrowding and the types of material used to construct the dwelling. Some measures incorporate indicators of access to basic services such as water, sanitation and electricity. For this 2007–2018 MODA, the housing dimension is represented by two indicators:

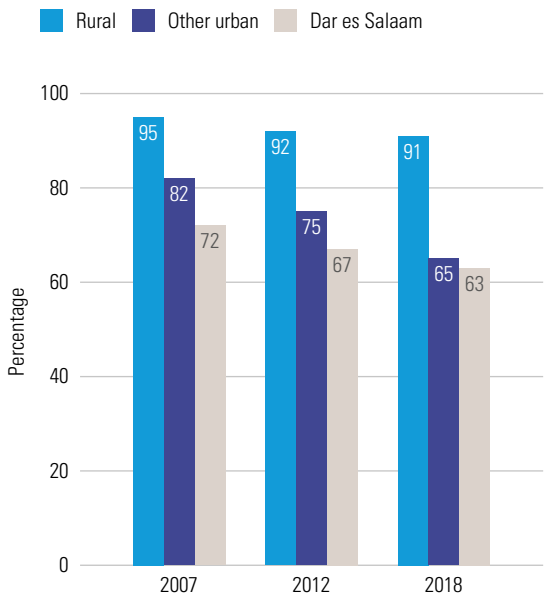
1. Overcrowding (i.e., where households had a room occupancy of more than two (>2), adult equivalents per room). As per UNICEF's previous use of such an indicator (NBS and UNICEF, 2019), children aged 0–5 years were counted as 0.5, and household members older than 5 years counted as 1. The number of rooms excluded kitchens, bathrooms and storage rooms.
2. Construction materials used for the roof, floor and walls of the main dwelling. Living in dwellings with floors made of earth or palm bamboo; or roofs of mud, grass or plastic; or walls of mud or grass was considered deprived.

Housing deprivation by place of residence

As shown in Figure 19, there have been considerable improvements between 2007 and 2018, yet deprivation in the housing dimension remains widespread in Mainland Tanzania, across other urban and rural locations and also in Dar es Salaam. Despite these improvements, housing deprivation has been and remains the most prevalent deprivation affecting children in Mainland Tanzania, with around two-thirds of all urban children and more than 90 per cent of rural children deprived in this dimension in 2018. Such exposure has implications for child health and broader development (Wolff et al., 2001; Shreshtha et al., 2020).

The prevalence of housing deprivation is most likely due to the choice and use of traditional construction materials (e.g., mud floors and walls) and ongoing cultural practices of large households sharing a few (bed)rooms. Policy responses could entail support for improving construction materials and encouraging smaller households, which would help tackle overcrowding.

Figure 19: Trends in housing deprivation by place of residence in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

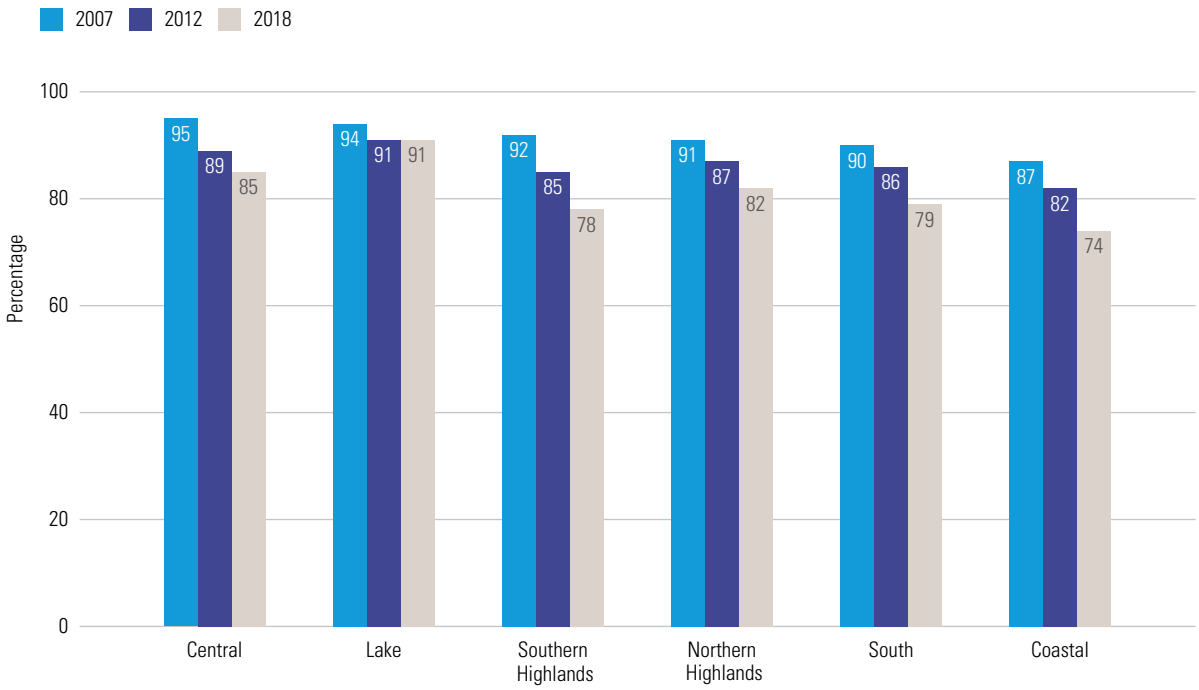
Housing deprivation by zone

Figure 20 (page 30) presents prevalence rates of deprivation in the housing dimension, by (harmonized[15]) zone of residence. In no zone were rates in 2018 higher than in 2007 or 2012.

In 2007 rates of housing deprivation were over 90 per cent in all but one of the harmonized zones (Coastal). By 2018, over 75 per cent of Mainland Tanzania's children remained deprived in respect of housing. It should be noted though that the use of a harmonized zonal variable may well mask more significant improvements, as illustrated by the progress made in Dar es Salaam (Figure 19), an aspect that is explored further in Figures 20–26 (pages 30–31).

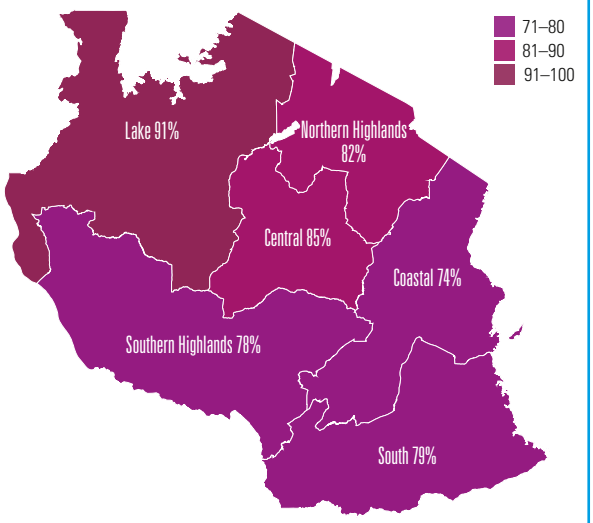
15 See page 16 (Section 2.1, Data and methods) for more detail.

Figure 20: Trends in housing deprivation by zone in Mainland Tanzania, 2007–2018



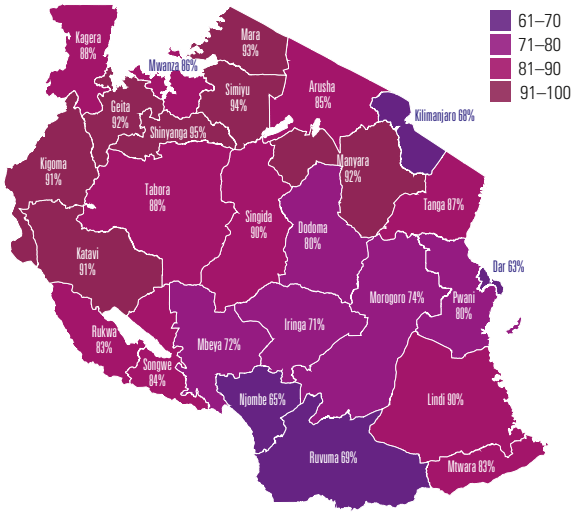
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 21: Housing dimension: percentage of children in Mainland Tanzania deprived, by zone, 2018



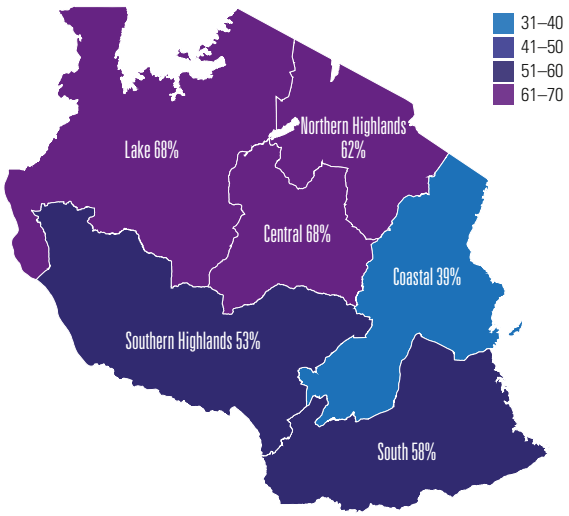
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 22: Housing dimension: percentage of children in Mainland Tanzania deprived, by region, 2018



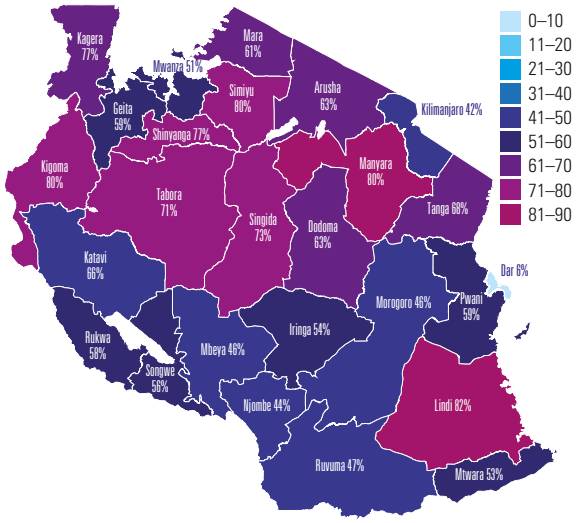
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 23: Housing material: percentage of children in Mainland Tanzania deprived, by zone, 2018



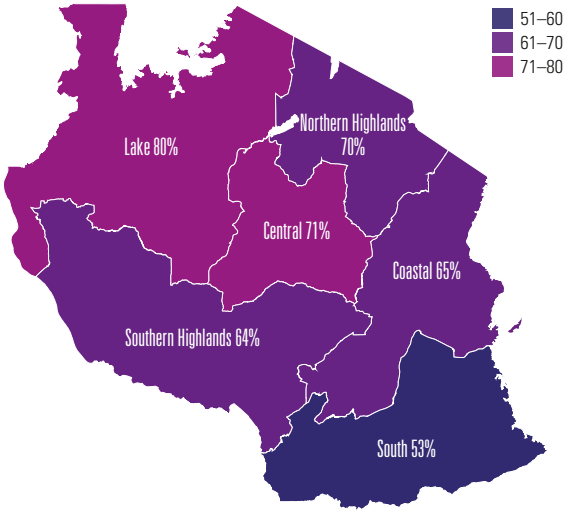
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 24: Housing material: percentage of children in Mainland Tanzania deprived, by region, 2018



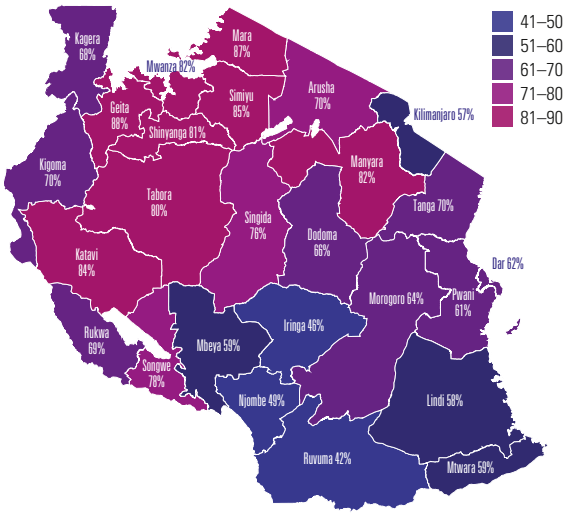
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 25: Overcrowding: percentage of children in Mainland Tanzania deprived, by zone, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 26: Overcrowding: percentage of children in Mainland Tanzania deprived, by region, 2018



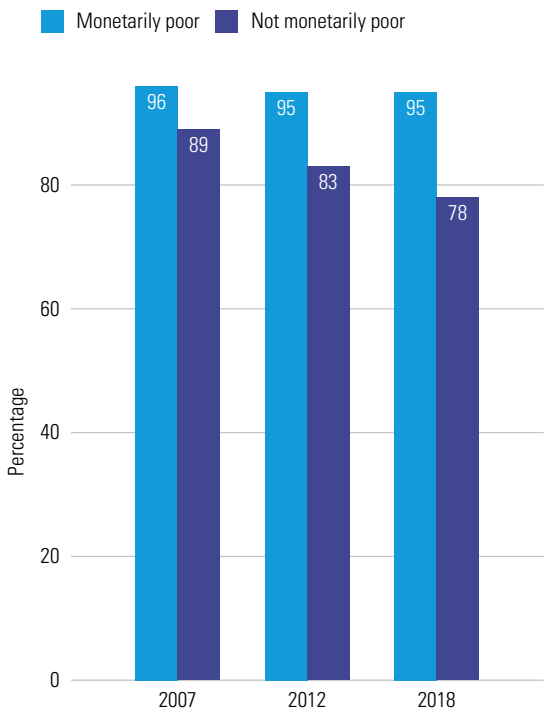
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Housing deprivation by monetary poverty status

The HBSs include data on the monetary poverty status of households. This information can then be used in conjunction with data on material deprivation in different dimensions to effectively show overlaps between monetary and non-monetary poverty, thus revealing the MD nature of child poverty in Mainland Tanzania.

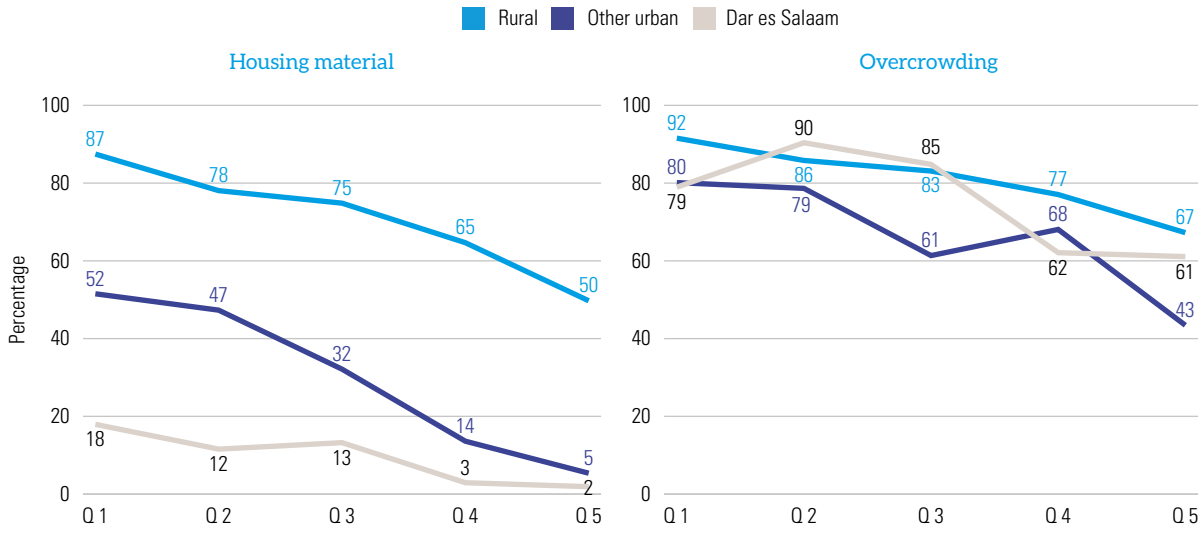
Figure 27 shows that 96 per cent of children in monetary-poor households in 2007 were also deprived in the housing dimension. This overlap did not change across the 11 years, such that the overlap between the two was 95 per cent in 2018. Among those children whose households were not identified as monetarily poor in the year of the survey (i.e., their household incomes were above the poverty line or threshold for each year), the overlap with housing deprivation was also high, ranging from 89 per cent in 2007 to 78 per cent in 2018. These patterns demonstrate that significant proportions of children who are not monetarily poor are in fact housing-deprived, with clear implications for children's health development and survival. This could impact the targeting of anti-poverty programmes and policies, limiting their impact in the medium and longer term, since the clearly deprived may be missed due to their 'monetarily non-poor' status.

Figure 27: Trends in housing deprivation by monetary poverty status in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 28: Indicator deprivation rate by consumption quintile for urban and rural children in Mainland Tanzania, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

We can further unpack these findings by looking at the percentage of children deprived in the housing dimension according to their household consumption (Figure 28, page 32). Consumption includes everything that was purchased and consumed over 28 days in sampled households. This included records on food and non-food items that were purchased and food that was grown by the household. Instead of simply looking at those below the poverty line, the overall consumption distribution could be split into groups (in this case five groups, known as quintiles) – from poorest to richest. Figure 28 (page 32) shows that children living in the poorest households are considerably more likely to live in dwellings with floors made of earth or palm bamboo; or roofs of mud, grass or plastic; or walls of mud or grass. They are also more likely to live in overcrowded households than richer households. The high rate of housing material deprivation is primarily driven by (poorer) rural households.

Figure 28 (page 32) also shows that overcrowding remains prevalent (over 50 per cent) in rural and urban areas, including Dar es Salaam. Although richer households are less likely to endure these deprivations, overcrowding remains widespread even among richer households, regardless of the area they live in.

Finally, it is worth exploring further the problem of housing deprivation.[16] In both rural and urban environments, roughly 65 per cent of children live in dwellings with adequate roofs and walls but unimproved floor materials (NBS, 2020). The remaining 35 per cent of children live primarily in houses where floors, walls and floors are all unimproved. In other words, the major persistent problem in both rural and urban areas remains inadequate flooring, while walls and roofs account for roughly a third of the housing material deprivation (NBS, 2020).

3.5 Trends in deprivation in the water and sanitation dimension

Water and sanitation are critical basic services for all households and are particularly important for children's health and the prevention of waterborne diseases. Hygiene and basic sanitation were important in protecting people during the coronavirus disease 2019 (COVID-19) pandemic, and having user-friendly and functional hand hygiene stations at or near dwellings is important. While the sharing of water, sanitation and hygiene facilities is common practice in many places, particularly at water sources, it is important to consider the time taken to collect water from such sources and the implications of multiple households sharing sanitation facilities. The World Health Organization (WHO) and UNICEF (WHO, 2014a) have categorized water and sanitation facilities as either improved or unimproved and these definitions are used in this MODA report. Priority in developing the indicators has been placed on comparability and on reflecting deprivation in a meaningful sense. Three household-level indicators represent the water and sanitation dimension:

1. The household's main source of water for drinking, where households using unimproved water sources (e.g., rivers, dams or lakes, unprotected wells and/or springs) are counted as deprived.
2. The time taken to collect water for the household, where households take more than 30 minutes to collect water are counted as deprived.
3. Household sanitation facilities, where households using unimproved sanitation facilities (e.g., no facilities, rivers or bushes or open pit latrines without slabs) or are sharing facilities with other households are counted as deprived.

Children deprived in any one of these three indicators were counted as deprived in the water and sanitation dimension.

Water and sanitation deprivation by place of residence

Progress in tackling deprivation in this important dimension has not been as forthcoming as for other dimensions. As seen in Figure 29 (page 34), between 2007 and 2012, there was some progress in reducing deprivation in rural areas, with little change in the situation between 2012 and 2018. In 2018, over 90 per cent of rural children in Mainland Tanzania experienced water and sanitation deprivation. In urban areas, including Dar es Salaam, progress was clearer, with deprivation rates decreasing from 88 per cent to 67 per cent in Dar es Salaam and from 89 per cent to 62 per cent in other urban areas.

16 Note that the figures in this paragraph are not depicted in the graphs or tables in Section 3.4.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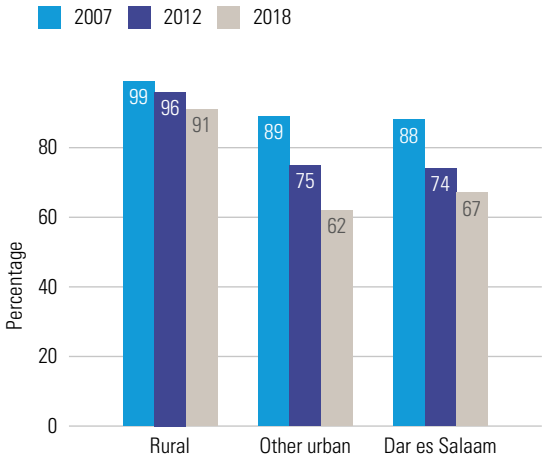
Water and sanitation deprivation by zone

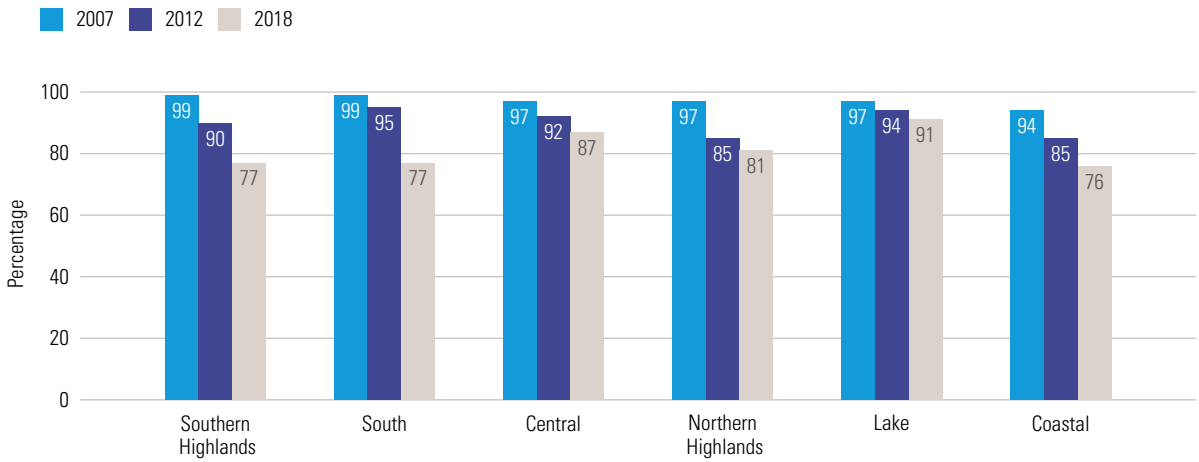
Trends in deprivation at zonal and regional levels (Figures 30–38 below and pages 35–36) essentially present a picture of high but steadily declining deprivation. Progress is least apparent in the Lake and Central zones and most apparent in the Coastal zone. Again, the harmonized grouping of zones will mask greater variations in progress. Generally, though, there have been improvements, although less so in predominantly rural communities.

Figure 29: Trends in water and sanitation deprivation by place of residence in Mainland Tanzania, 2007–2018



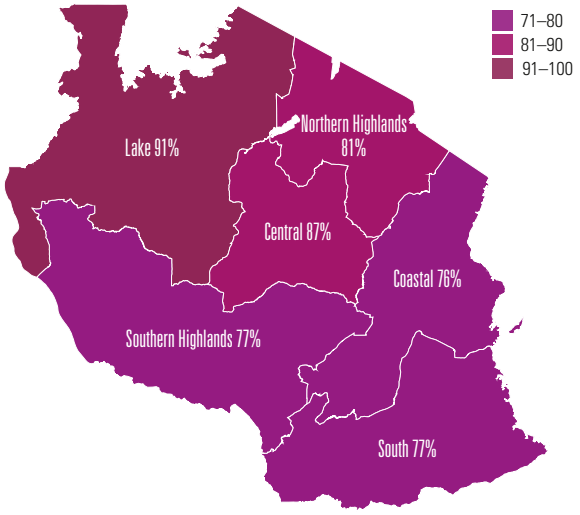
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 30: Trends in water and sanitation deprivation by zone of residence in Mainland Tanzania, 2007–2018



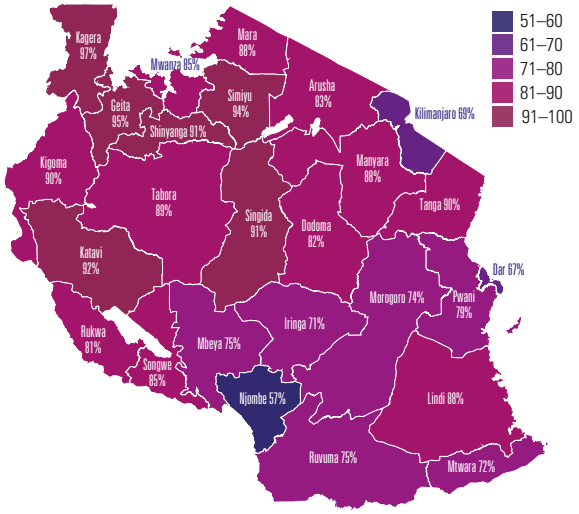
Source: Authors' analysis of HBS 2007 (NBS,2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 31: Water and sanitation dimension: percentage of children in Mainland Tanzania deprived, by zone, 2018



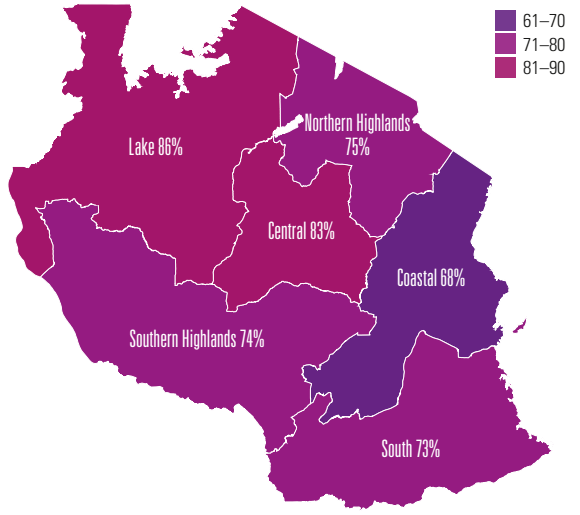
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 32: Water and sanitation dimension: percentage of children in Mainland Tanzania deprived, by region, 2018



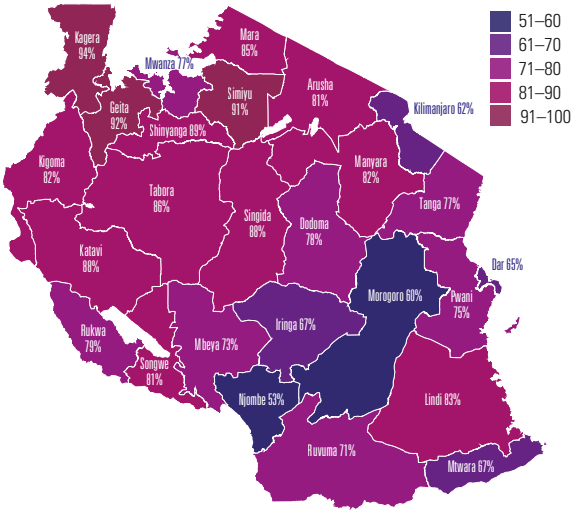
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 33: Sanitation: percentage of children in Mainland Tanzania deprived, by zone, 2018



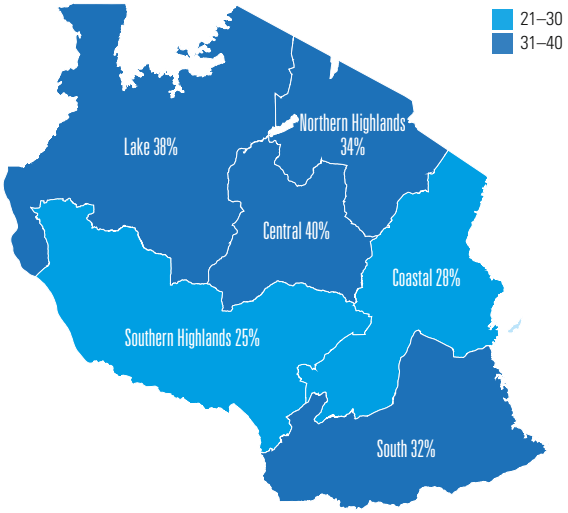
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 34: Sanitation: percentage of children in Mainland Tanzania deprived, by region, 2018



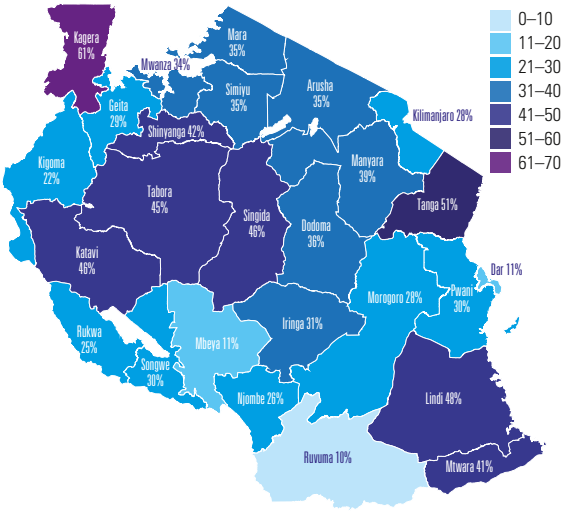
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 35: Water source: percentage of children in Mainland Tanzania deprived, by zone, 2018



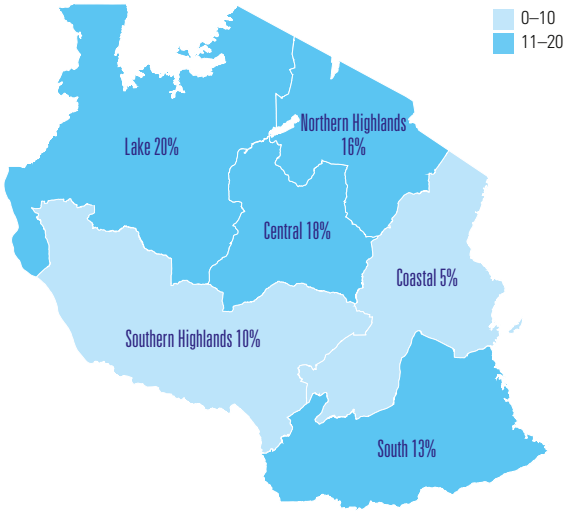
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 36: Water source: percentage of children in Mainland Tanzania deprived, by region, 2018



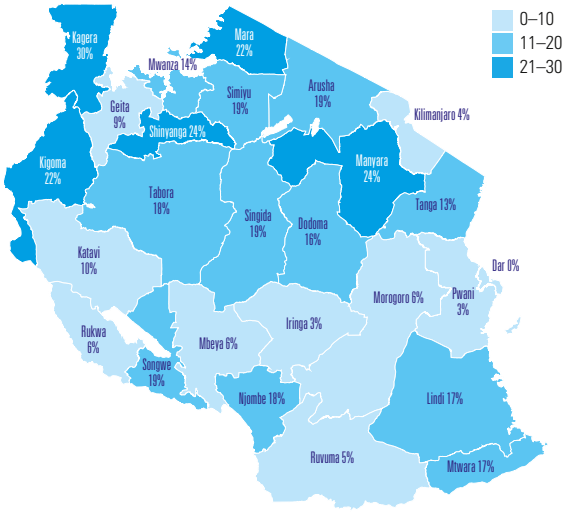
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 37: Time to water: percentage of children in Mainland Tanzania deprived, by zone, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 38: Time to water: percentage of children in Mainland Tanzania deprived, by region, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

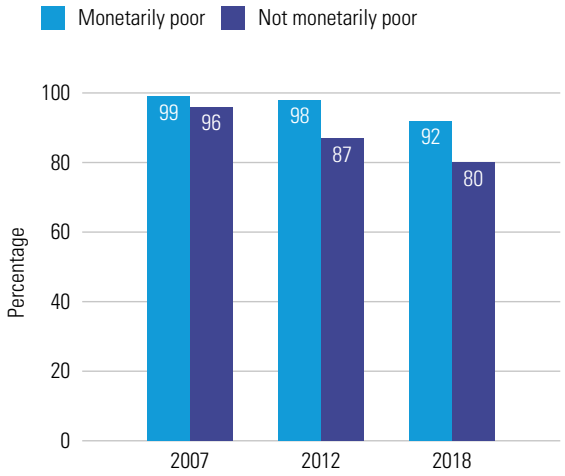
Water and sanitation deprivation by monetary poverty status

Close examination of the overlaps between monetary poverty and deprivation in the water and sanitation dimension reveals that deprivation declined for both groups, but more so for those not monetarily poor (Figure 39). The fact that 9 in 10 poor children and 8 in 10 who are not poor were deprived in this most important and basic dimension in 2018 suggests a need for continued focus and improvement. Tackling this important problem is very likely to involve considerable effort by the government.

Figure 40 shows the relationship between each water and sanitation dimension indicator and household consumption. It shows that the clear correlation found between consumption (i.e., a proxy at household level of monetary and overall welfare) and many of the other dimensions in this chapter is also present for the sanitation indicator, yet it is far from clear for water indicators, particularly in rural environments. This suggests time for collecting water and water source deprivations in rural environments are not easily overcome by better-off households and are likely to require investment in water infrastructure and planning to close the gap between the living conditions of children in rural and urban areas (including Dar es Salaam).

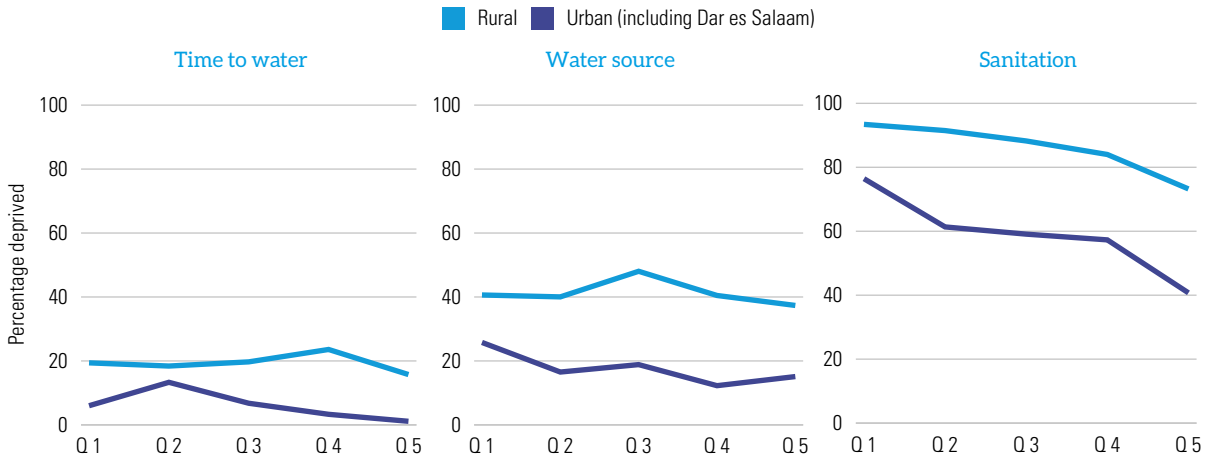
It is also worth unpacking this dimension by inspecting the meaning of the underlying indicators. The percentage of children across Mainland Tanzania who lack access to improved sanitation decreased from 96 per cent to 78 per cent between 2007 and 2018 (Figure 18, page 27). Despite this improvement, analysis of the HBS 2017/18 (NBS, 2020) shows that the rate

Figure 39: Trends in water and sanitation deprivation by monetary poverty status in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

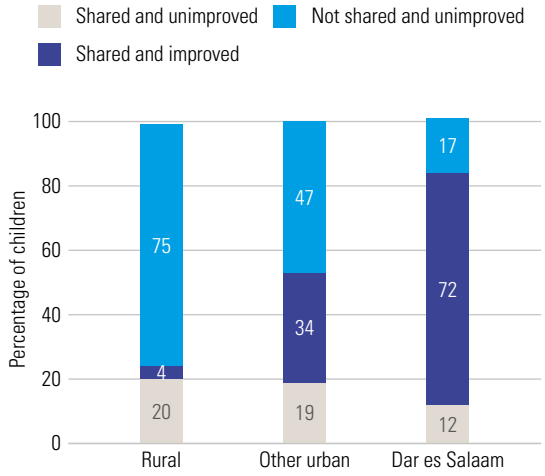
Figure 40: Percentage of children deprived in each water and sanitation indicator by consumption quintile in Mainland Tanzania, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

of sanitation deprivation is still extremely high in both rural (87 per cent) and other urban (54 per cent) areas, including Dar es Salaam (65 per cent) (not shown). Figure 41 shows that in rural areas the vast majority have access only to an unimproved facility, whether shared (20 per cent) or unshared (75 per cent). In contrast, in Dar es Salaam 72 per cent of children share an improved facility, while in other urban areas the figure is 34 per cent for this group of children. In other words, in rural areas sanitation deprivation is driven primarily by the use of unimproved toilets, whereas in other urban areas, and especially in Dar es Salaam, sanitation deprivation is also the result of sharing improved toilets with other families.

Figure 41: Type of sanitation used by children in rural and urban settings, including Dar es Salaam, 2018

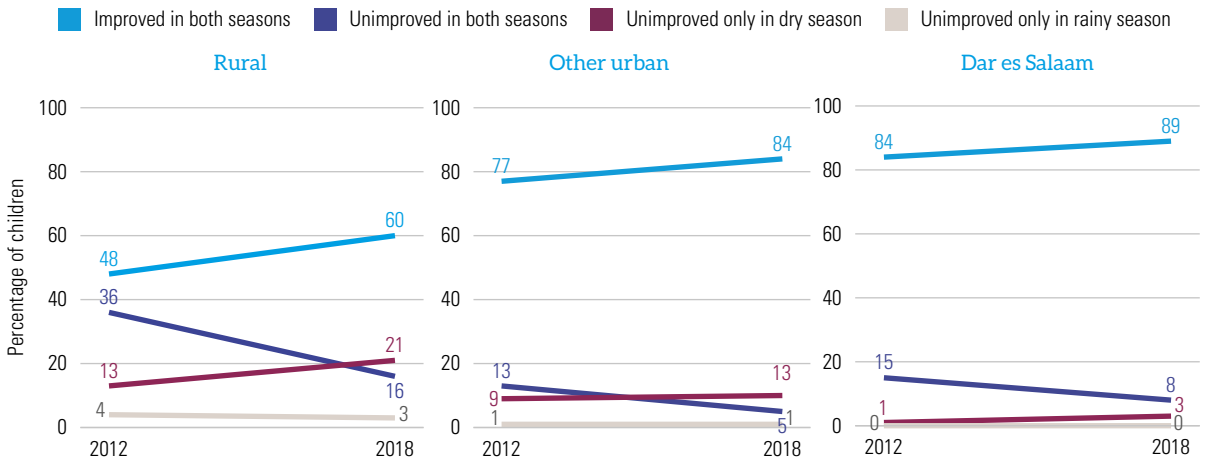


Note: Values may not add up to 100 per cent because of rounding.
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Counting shared, improved sanitation facilities as deprivation may at first seem a way of overstating sanitation deprivation. However, this is in line with the water, sanitation and hygiene framework, and a recent analysis across 51 countries confirms that, although the health implications of sharing an improved toilet between households may not be as severe as only having an unimproved toilet, the prevalence of issues like diarrhoea was 10 per cent lower in households with non-shared improved facilities than households with shared but otherwise improved facilities (Fuller et al., 2014). This is also in line with recent COVID-19 guidance on avoiding direct or indirect contact with other households.

As for access to improved water sources, the percentage of children who do not have access to improved sources of water has dropped from 50 per cent to 33 per cent (see Figure 18, page 27). Hidden within this overall decrease are both positive and worrying trends. Figure 42 shows that the percentage of children who have access to improved sources of water in both dry and rainy seasons has increased

Figure 42: Types of primary sources of water by place of residence in Mainland Tanzania, 2012–2018



Source: Authors' analysis of HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

considerably in rural (from 48 per cent to 60 per cent) and urban areas excluding Dar es Salaam (77 per cent to 84 per cent). In Dar es Salaam, this percentage increased from 84 per cent to 89 per cent. However, the percentage of children who have access only to unimproved sources in the dry season (while having access to improved sources in the rainy season) has not decreased in urban areas and has increased from 13 per cent to 21 per cent in rural areas (a statistically significant change at the 5 per cent level).

Overall, this suggests that further measures should be undertaken to make sure that children have consistent access to improved sources of water throughout the year.

3.6 Trends in deprivation in the communication dimension

Measures of MD poverty have increasingly incorporated indicators to reflect both information and communication deprivation. The ability of households and children to access sources of information is critical for education and (as the pandemic has shown) health. Technological developments, like mobile telephones, and increasingly cheaper means of communication, like computers, enable communities to access sources of information like the internet and communicate widely and quickly.

To facilitate comparability over time, the MODA presented here only uses data to report on trends in the communication dimension – namely, whether households had access to either landline or mobile telephones. Data related to household computers were collected in the HBS, but it was unclear whether households had access to the internet, thus obfuscating the meaning of a household's capacity to 'communicate' using a computer. As such, deprivation in the communication dimension is based on whether a household had or lacked either a landline or a mobile telephone.[17] Given the nature of the indicator (ownership) and the spread of cheap mobile phones, it is no surprise that overall deprivation in this dimension declined as far and as fast as it did, from 76 per cent to 20 per cent between 2007 and 2018 (see Figure 18, page 27).

Communication deprivation by place of residence

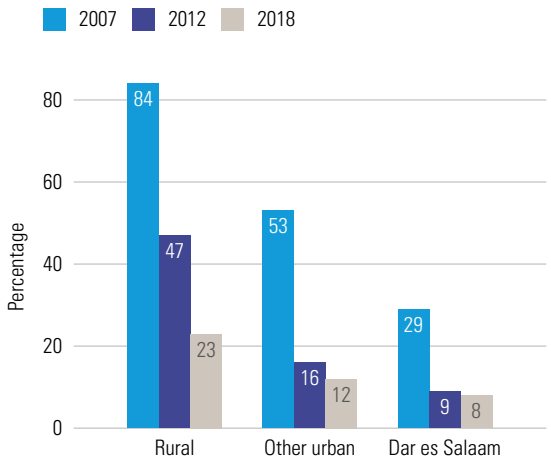
Notably, by 2018 less than 15 per cent of other urban children were deprived in this dimension, while the deprivation rate for rural children dropped from 84 per cent in 2007 to 23 per cent in 2018 (Figure 43). In Dar es Salaam, where deprivation rates have historically been lowest, less than 10 per cent of children were deprived in 2018.

Communication deprivation by zone

A similar steady decline in communication deprivation was evident across all zones of Mainland Tanzania, and by 2018 no zone had deprivation rates above 25 per cent and no region had deprivation rates above 35 per cent (Figures 44–46, page 40). This contrasts with 2007, where all zones showed rates above 60 per cent.

> Measures of MD poverty have increasingly incorporated indicators to reflect both information and communication deprivation.

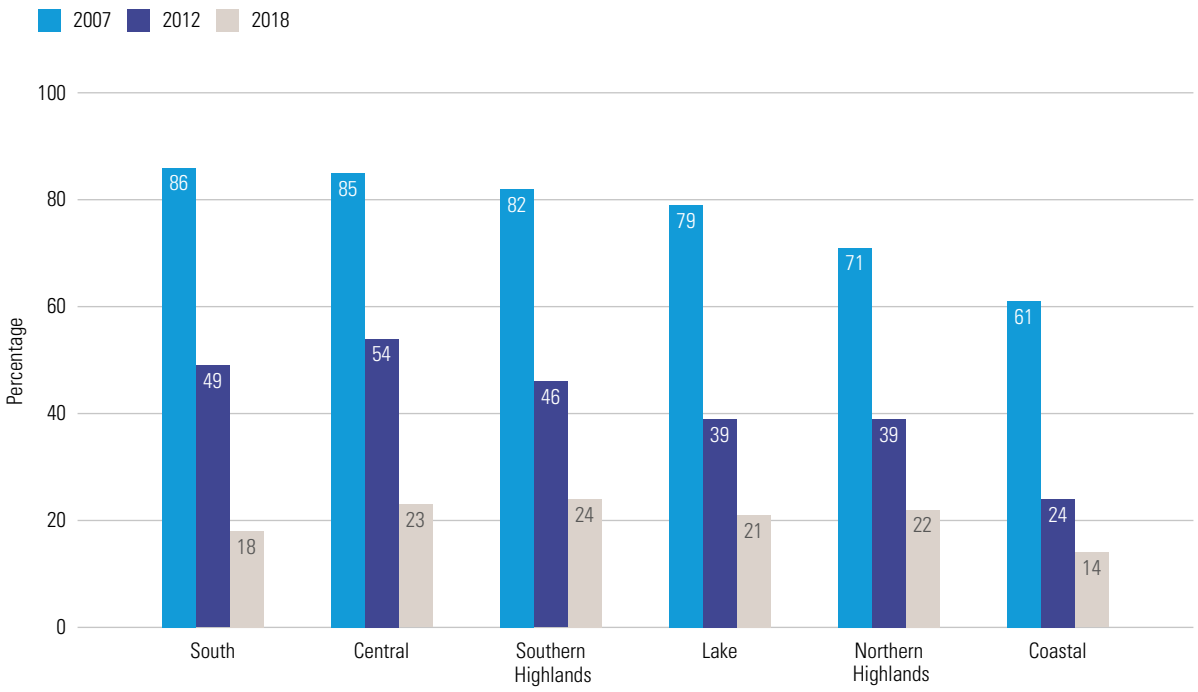
Figure 43: Trends in communication deprivation by place of residence in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

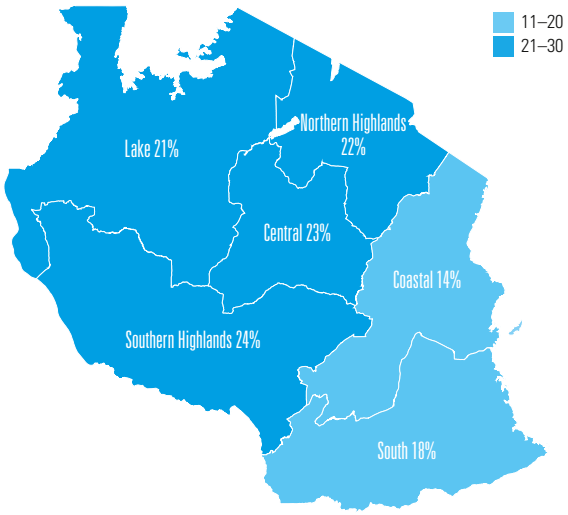
17 Previous MODAs also included an information dimension, which identified households without television, books and radio. Following an initial data exploration, wider technological advancements and the general increase in access to the internet and online learning materials, it could be argued that this indicator *as originally designed* is not comparable across time and is now of limited value in meaningfully reflecting access to information. Household survey data, while containing information about the possession of books, do not specify if these are for children.

Figure 44: Trends in communication deprivation by zone in Mainland Tanzania, 2007–2018



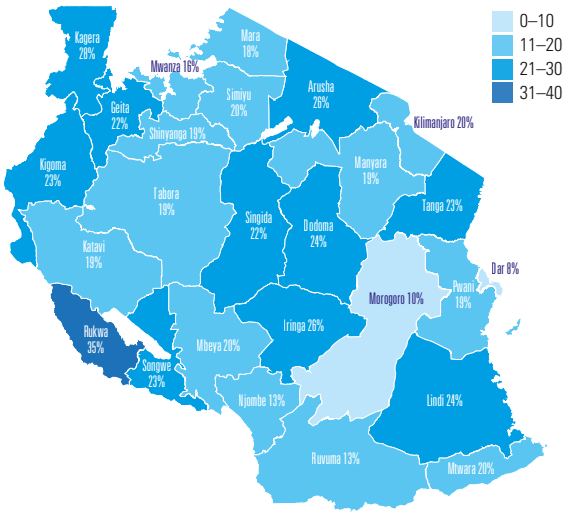
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 45: Communication dimension: percentage of children in Mainland Tanzania deprived, by zone, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 46: Communication dimension: percentage of children in Mainland Tanzania deprived, by region, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Communication deprivation by monetary poverty status

Similarly impressive rates of progress in reducing communication deprivation can be observed with regard to the monetarily poor and not poor. In 2007, nearly all the poor (90 per cent) were deprived in the communication dimension, but this dropped to 58 per cent in 2012 and 30 per cent in 2018. In 2018, around one in seven (15 per cent) not-poor children in Mainland Tanzania were communication-deprived, suggesting that coverage of technologies like mobile telephones is not yet universal (Figure 47).

Nevertheless, this remains related to overall levels of household resources. As shown in Figure 48, in both rural and urban households in 2018, fewer than 10 per cent of children in the highest (5th) quintile did not have access to landline or mobile telephones. This is in contrast to the much higher (roughly three times) rates of deprivation experienced by children in the lowest (1st) quintile.

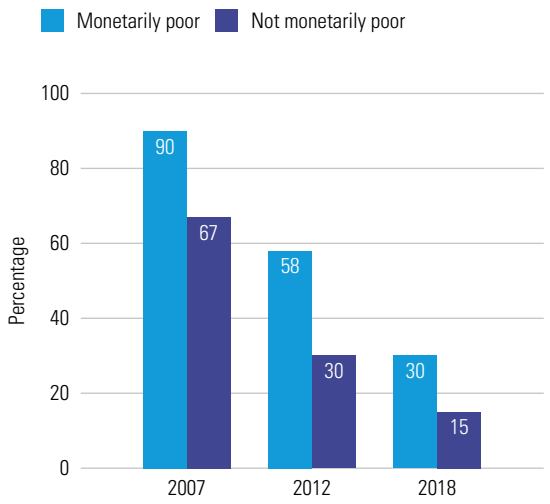
3.7 Trends in deprivation in the education dimension

Children's rights to education are a fundamental part of their broader development and are enshrined in the United Nations Convention on the Rights of the Child (UN, 1989). No measure of MD child poverty would be complete without reflecting on the educational needs and rights of children. In the past, measures of MD child poverty have used data on whether children have ever been in school, which, although crude, provided some measure of contact with (basic) education. Researchers now recognize the importance of reflecting on the quality of education that children receive and whether what they are learning (especially in primary school) prepares them for later life. Unfortunately, data that would reflect the quality of education (e.g., teacher absence and ability to participate in school and afford appropriate school uniforms) are not available in the HBS.

In this MODA, four child-level indicators are used to reflect deprivation in the education dimension. These are:

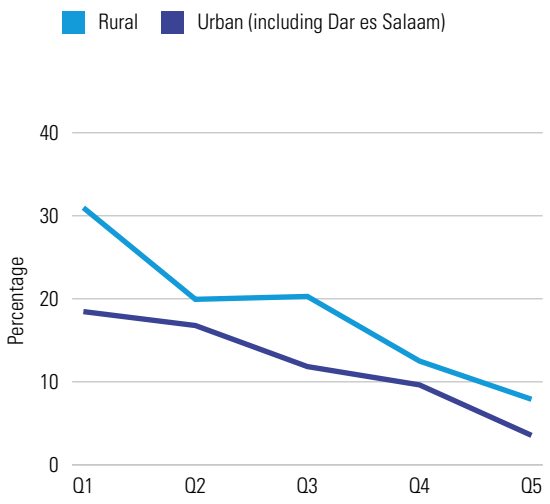
1. School enrolment – whether a child of school age (i.e., between the ages of 7 and 17 years) was attending school (including preschool).
2. School attendance – whether older children (aged 16–17 years) had ever attended school.
3. Grade for age – whether children between 9 and 17 years of age were more than two years over the regular/expected age for their current grade.

Figure 47: Trends in communication deprivation by monetary poverty status in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 48: Percentage of children deprived in the communication indicator by household consumption quintile in Mainland Tanzania, 2018



Note: Quintile 1 = poorest; quintile 5 = richest
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

4. Child literacy – whether children aged between 9 and 17 years of age were reported not to be able read and write in any language or were not able to read a full sentence in either English or Swahili if tested.

Children deprived in any one of these indicators were considered deprived in the education dimension.

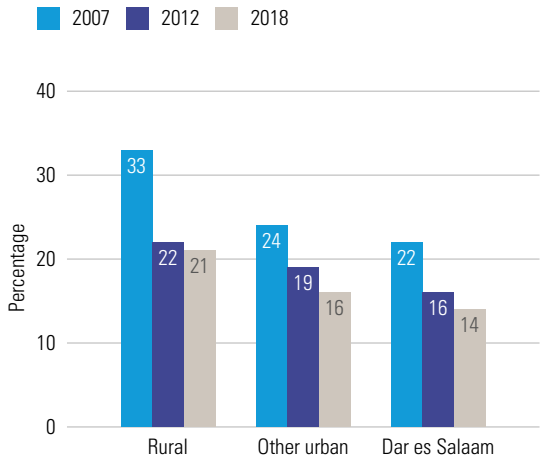
Education deprivation by place of residence

Based on individual child-level data, it is apparent that progress was made in Mainland Tanzania between 2007 and 2012, but that it slowed between 2012 and 2018. In rural areas, deprivation rates fell from 33 per cent in 2007 to 21 per cent in 2018, leaving one in five rural children education-deprived. In urban areas there was a decrease from 24 per cent in 2007 to 16 per cent in 2018, while in Dar es Salaam education deprivation fell from 22 per cent to 14 per cent over the same period (Figure 49).

This overall downward trend in the education dimension is the result of decreases in enrolment, grade for age and literacy deprivation. Figure 50 shows how the deprivation gap between rural and urban areas has narrowed considerably for enrolment and literacy, meaning that the same or a very similar percentage of children in rural areas was enrolled in school and reported being able to read and write.

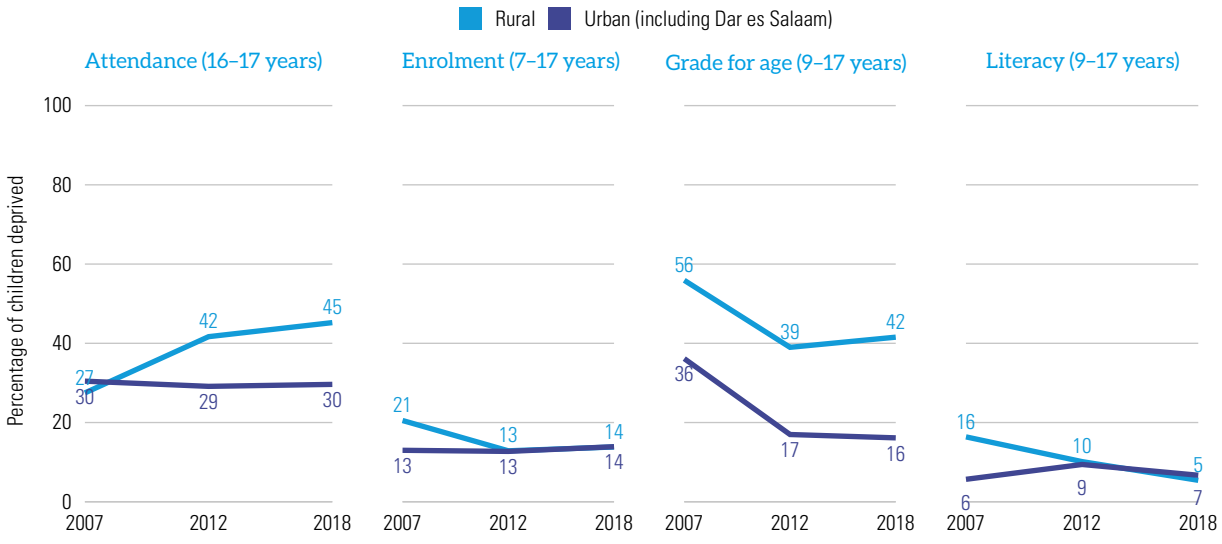
However, children in rural areas are still more likely to be over the regular/expected age for their current grade by two or more years (grade-for-age deprivation was 42 per cent in rural areas and 16 per cent in urban areas in 2018). Figure 50 also shows that the percentage of rural children aged 16–17 years who have never attended school increased from 27 per

Figure 49: Trends in education deprivation by place of residence in Mainland Tanzania, 2007–2018



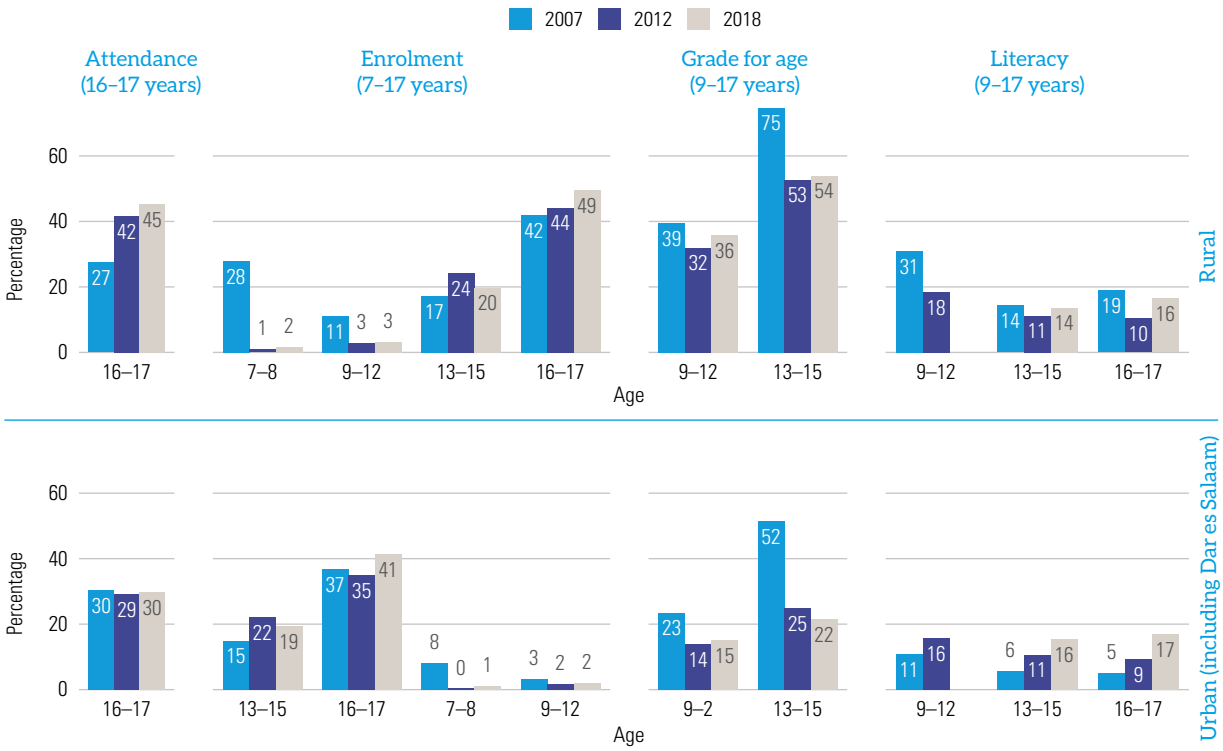
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 50: Percentage of children deprived of each education indicator in Mainland Tanzania, 2007– 2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 51: Percentage of children deprived in each education indicator by age and place of residence in Mainland Tanzania, 2007–2018



Note: Because of the small sample size, grade-for-age figures for older children are omitted. Moreover, the 2017/18 HBS lacks comparable data on literacy for those under 14 years of age.
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

cent to 45 per cent between 2007 and 2018 ($p < 0.05$). This indicator should be monitored closely in the years to come in rural areas.

It is also important to notice that much of the progress reported was among a younger cohort of children, i.e., those aged 7–12 years. As shown in Figure 51, there was no clear improvement in enrolment or literacy deprivation for children aged 13–15 years or 16–17 years between 2007 and 2018 in both urban and rural areas. Looking ahead, improvements in the education dimension will depend on whether the greater number of younger children who have enrolled will stay in school, which will likely lead to lower literacy and lower enrolment deprivations among older children, but the lack of progress among children aged 13–15 years suggests considerable effort will be needed.

The education dimension is also the only one where we see some differences according to the sex of the child.[18] As shown in Figure 52 (page 44), the overall trends are generally similar for boys and girls, and literacy levels, at least as measured in this report, are the same. There are, however, some differences in urban areas, including Dar es Salaam, where a greater percentage of 16–17-year-old females have never attended school (attendance-deprivation indicator). In urban areas, girls aged 16–17 years were almost twice as likely to have never attended school than boys of the same age. This is also corroborated by the higher levels of enrolment deprivation among girls in urban areas. On the other hand, among children attending school, boys in rural areas are more likely to lag behind than girls in grade-for-age deprivation (48 per cent and 35 per cent in 2018, respectively).

18 There are no clear differences between female and male in the other indicators. This is arguably due to the fact that the majority of indicators used in this report are at household level.

Figure 52: Percentage of male and female children deprived in each education indicator by place of residence in Mainland Tanzania, 2007–2018

Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)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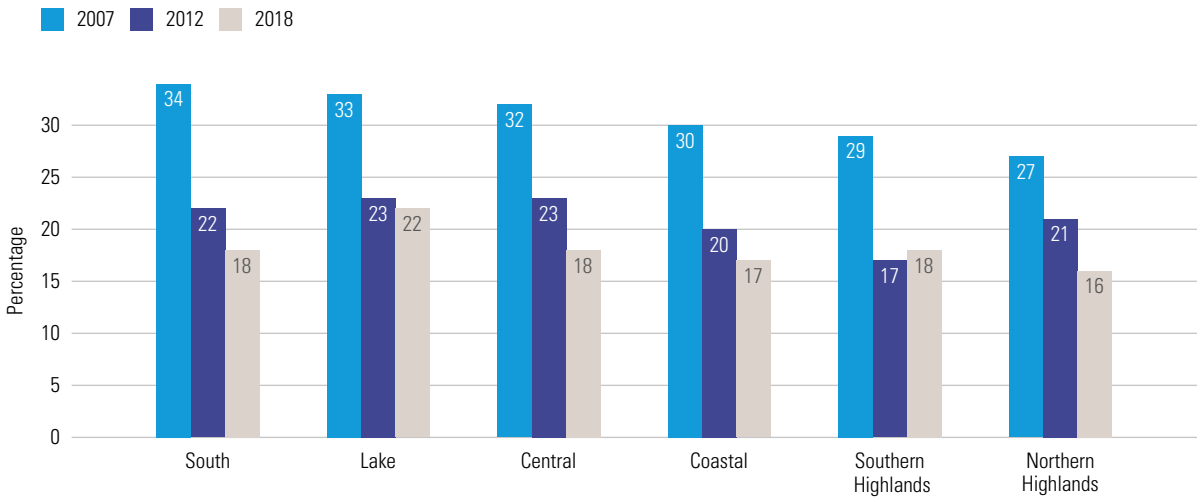
Education deprivation by zone

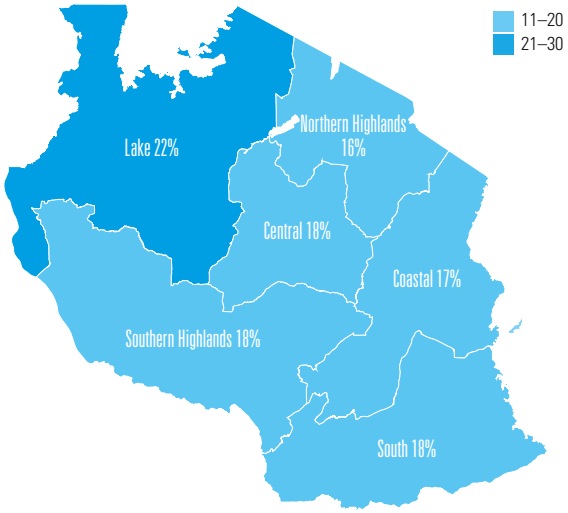
Reductions in education deprivation have taken place across all the harmonized zones of Mainland Tanzania, although progress stalled between 2012 and 2018 in the Lake and Southern Highlands zones (Figures 53–63 below and pages 46–47). Once again, the grouping of mainland regions masks sub-national variations, better depicted in the regional maps below.

Figure 53: Trends in education deprivation by zone in Mainland Tanzania, 2007–2018



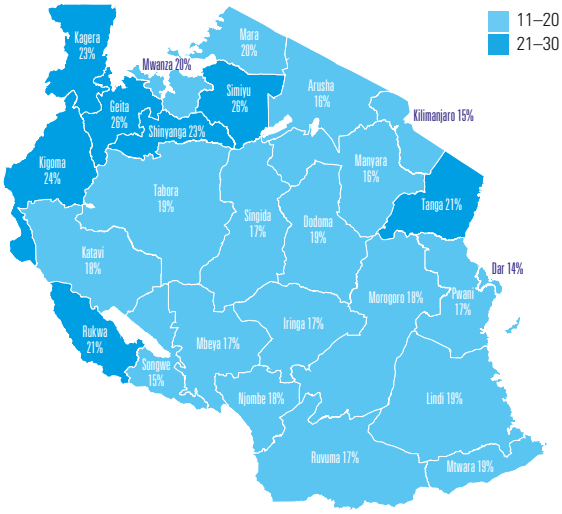
Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 54: Education dimension: percentage of children in Mainland Tanzania deprived, by zone, 2018



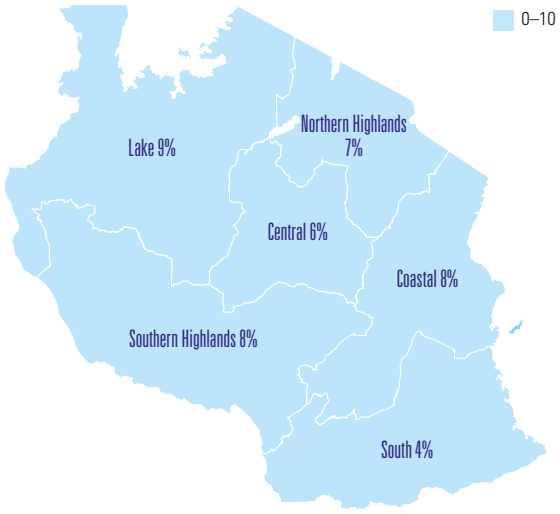
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 59: Education dimension: percentage of children in Mainland Tanzania deprived, by region, 2018



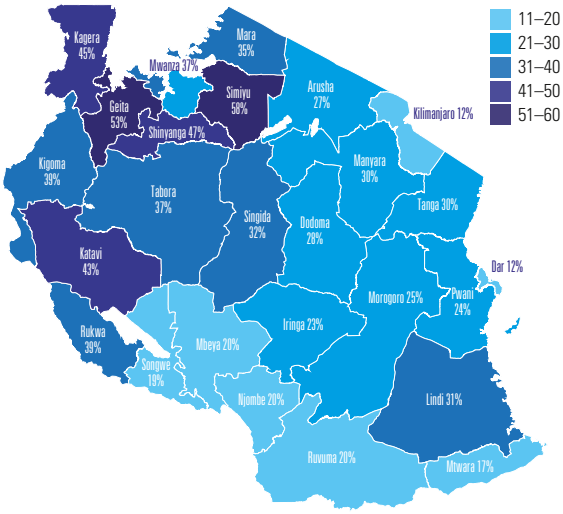
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 55: Grade for age (9–17 years): percentage of children in Mainland Tanzania deprived, by zone, 2018



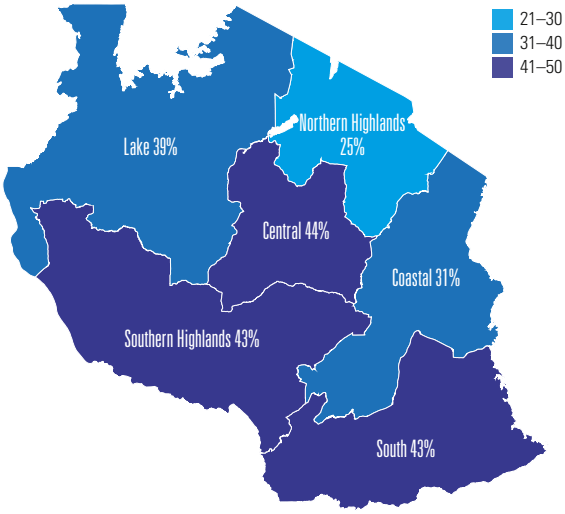
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 60: Grade for age (9–17 years): percentage of children in Mainland Tanzania deprived, by region, 2018



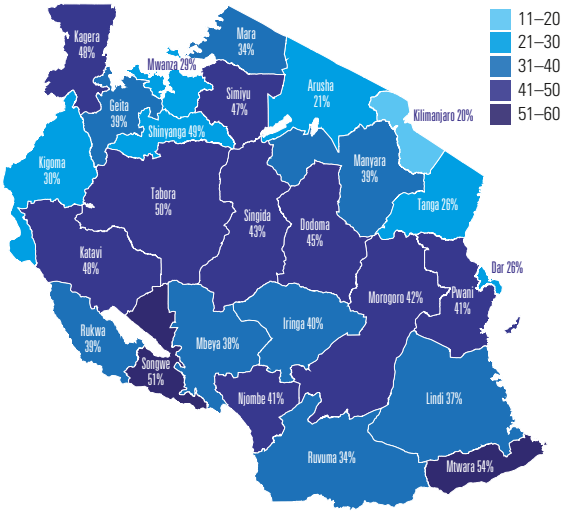
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 56: Attendance (16–17 years): percentage of children in Mainland Tanzania deprived, by zone, 2018



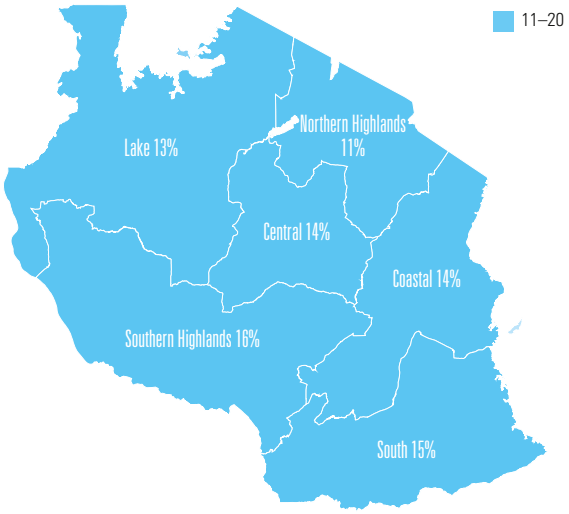
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 61: Attendance (16–17 years): percentage of children in Mainland Tanzania deprived, by region, 2018



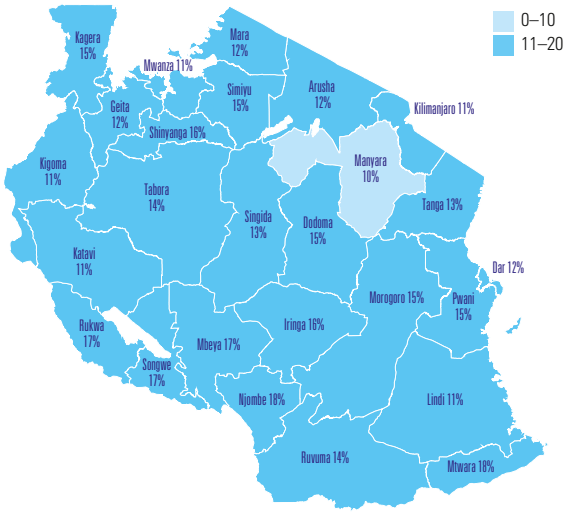
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 57: Enrolment (7–17 years): percentage of children in Mainland Tanzania deprived, by zone, 2018



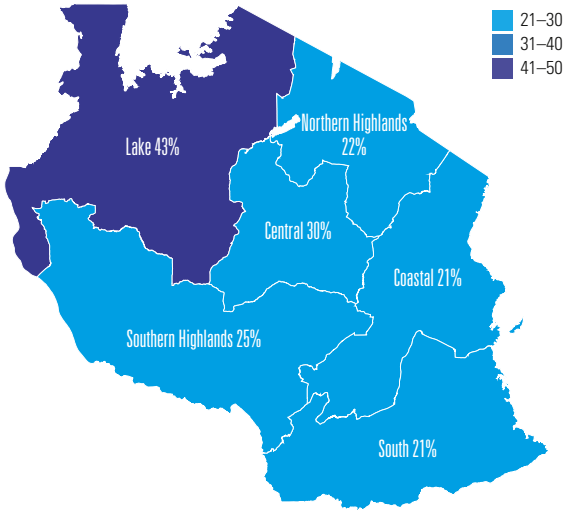
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 62: Enrolment (7–17 years): percentage of children in Mainland Tanzania deprived, by region, 2018



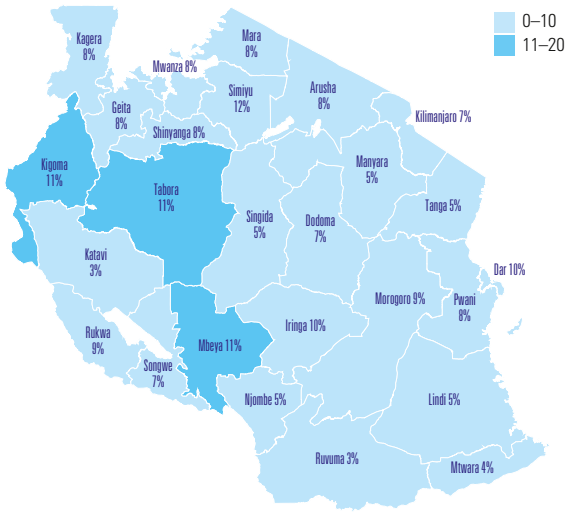
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 58: Literacy (9–17 years): percentage of children in Mainland Tanzania deprived, by zone, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 63: Literacy (9–17 years): percentage of children in Mainland Tanzania deprived, by region, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Education deprivation by monetary poverty status

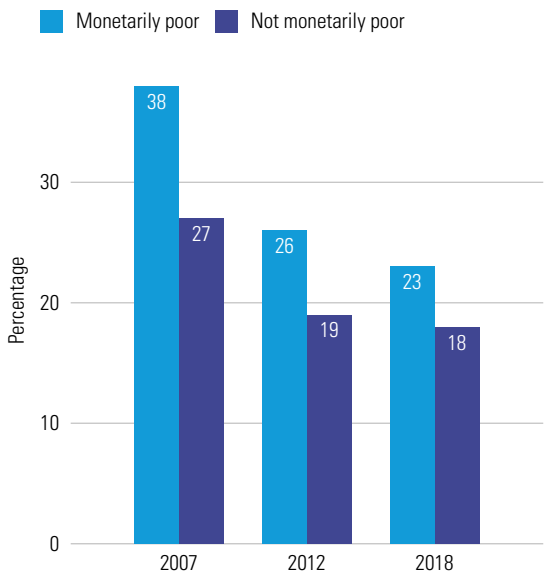
In terms of overlaps between monetary poverty and education deprivation (Figure 64), progress was made between 2007 and 2012 for children identified as monetarily poor, with rates falling from 38 per cent to 26 per cent. However, since 2012 the reductions have been less pronounced, with 23 per cent of monetarily poor children also being education-deprived in 2018. For non-poor children, again, deprivation rates were surprisingly high as the rates of decrease achieved between 2007 and 2012 (from 27 per cent to 19 per cent) were not sustained between 2012 and 2018.

3.8 Trends in deprivation in the health dimension

As with nutrition and education, ensuring children are not deprived in the health dimension is an important part of any measure of MD child poverty. There are several ways health deprivation could be presented, for example, through limited or no access to health services due to a lack of availability, or because households cannot afford to use them. In some instances, health services may be considered culturally inappropriate or not desirable, thus limiting demand, for example, gender restrictions between patients and providers and the reluctance shown in some communities to accept vaccinations via the Expanded Programme on Immunization (MacDonald, 2015).

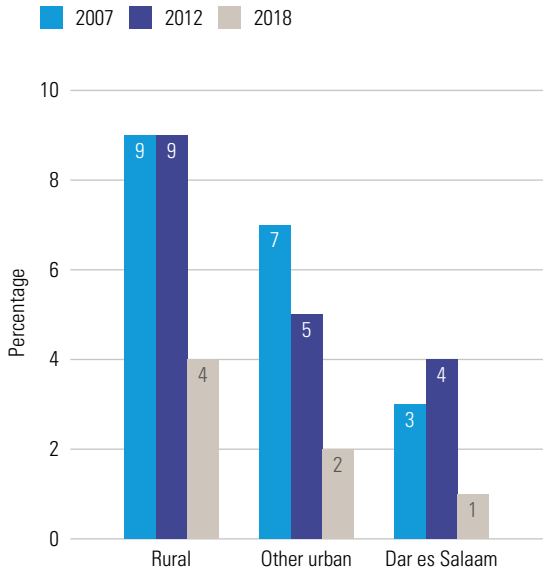
For this MODA report, the comparability of data to assess health deprivation across each round of the HBS was a challenge. Because of lack of comparable data, a decision was made to use a single, comparable indicator, based on child-level data, which showed whether a child who had a recent illness[19] failed to receive medical care or advice, or had only received care from a traditional healer. This indicator does not intend to underplay the value and knowledge of traditional healers, but rather is designed to reflect the degree of unmet needs for more formal systems of health care. Health deprivation, as measured in this report, has decreased from 8 per cent in 2007 to 3 per cent in 2018 (see Figure 17, page 26).

Figure 64: Trends in education deprivation by monetary poverty status in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 65: Trends in health deprivation by place of residence in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

19 These included illnesses like malaria, diarrhoea, anaemia, pneumonia, eye or skin diseases and accidents.

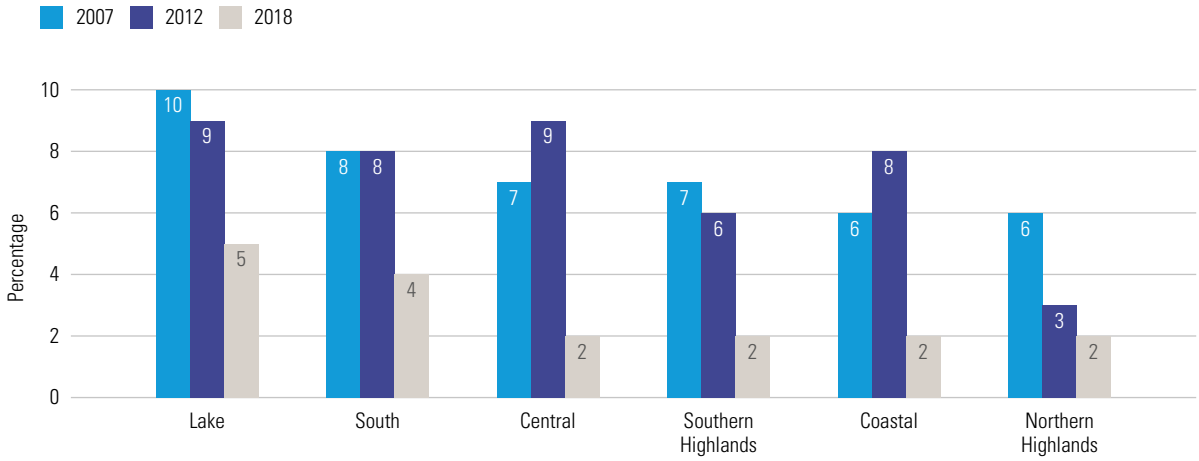
Health deprivation by place of residence

Figure 65 shows that with regard to the health dimension, children across Tanzania – in both urban and rural areas – fared relatively well, with almost universal access to health care when required in 2018. Progress appears most pronounced between 2012 and 2018, although not for Dar es Salaam. By 2018, however, only around 1 per cent of Dar es Salaam's children were identified as health-deprived.

Health deprivation by zone

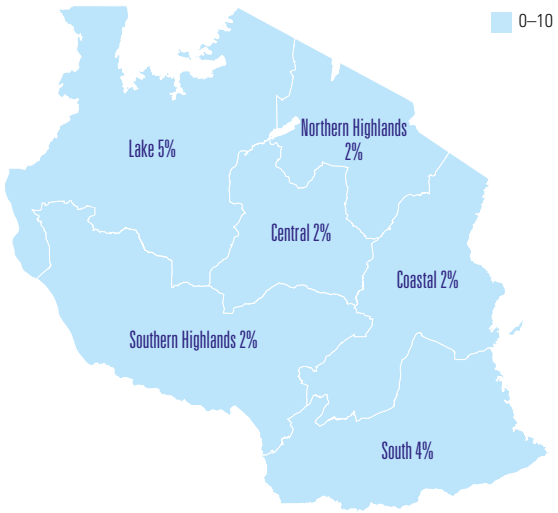
When considering health deprivation across harmonized zones (and regions), a more fragmented pattern emerges (Figures 66–68). The prevalence of health deprivation rose between 2007 and 2012 in two zones, Central and Coastal, but then declined for all zones by 2018. The reduction in health deprivation over the period assessed is impressive and provides hope for knock-on effects in other dimensions such as education and child well-being more broadly.

Figure 66: Trends in health deprivation by zone in Mainland Tanzania, 2007–2018



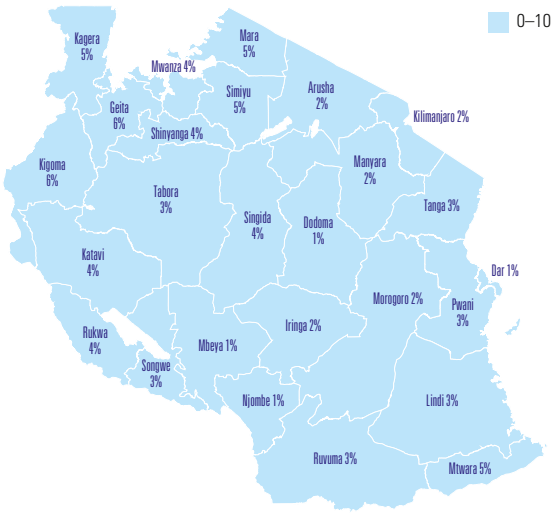
Source: Authors' analysis of HBS 2007 (NBS,2009), HBS 2011/12 (NBS, 2013) and 2017/18 (NBS, 2020)

Figure 67: Health dimension: percentage of children in Mainland Tanzania deprived, by zone, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Figure 68: Health dimension: percentage of children in Mainland Tanzania deprived, by region, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Health deprivation by monetary poverty status

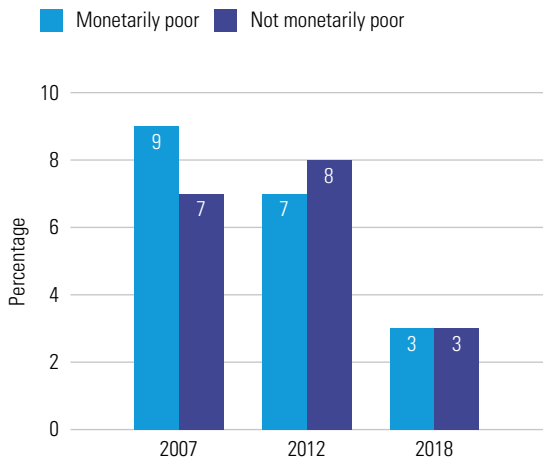
Also impressive with regard to achievements in the health dimension is the apparent lack of difference between monetarily poor and not-poor children, where both groups had rates of 3 per cent in 2018 (Figure 69). This suggests an effective universality of access for all children in Mainland Tanzania, albeit with questions to be asked of the Lake and South zones, where rates of health deprivation were twice those of all the others.

3.9 Trends in deprivation in the nutrition dimension

The 2018 HBS contains information on several food-related variables, including the number of meals a household has per day and the variety of foods consumed. However, these are not available in, or comparable to, previous HBSs. Thus, to present individual-level information about children's nutritional status in the United Republic of Tanzania, anthropometric data on heights and weights of children under 5 years of age were analysed from three recent DHSs for Tanzania (2004, 2010 and 2015). These cover roughly the same period as the HBSs analysed in this report.

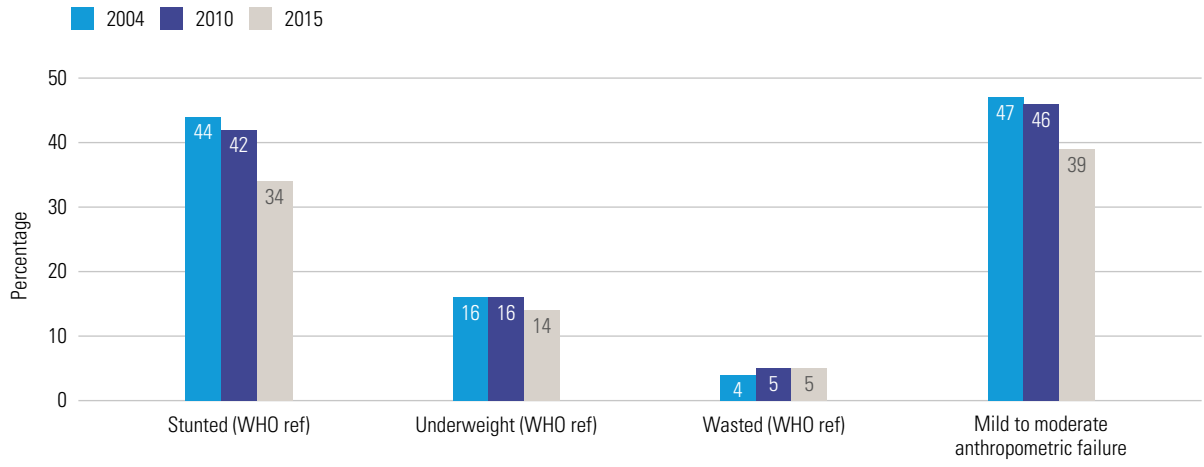
Anthropometric data are commonly used to create three conventional measures of undernutrition. These are low height-for-age, or stunting, a measure of chronic or prolonged food and nutrition deprivation; low weight-for-height, or wasting, a measure of more immediate or acute nutrition deprivation; and low weight-for-age, or underweight, used as a summary measure of stunting and wasting, and a key indicator of progress towards the SDGs for hunger. While each of these conventional indicators provides valuable information about children's nutritional status, when used on their own they fail to present a picture of the aggregate extent of child undernutrition. This is because not all children that experience stunting also

Figure 69: Trends in health deprivation by monetary poverty status in Mainland Tanzania, 2007–2018



Source: Authors' analysis of HBS 2007 (NBS, 2009), HBS 2011/12 (NBS, 2013) and HBS 2017/18 (NBS, 2020)

Figure 70: Trends in undernutrition of children under the age of 5 in the United Republic of Tanzania, 2004–2015



Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

experience wasting or are underweight, and not all of those who are underweight are stunted, etc. Instead, the Composite Index of Anthropometric Failure (CIAF), which counts whether a child is stunted, wasted and/or underweight, is increasingly being used as a measure. According to the 2015 DHS, as shown in Figure 70 (page 50), 34 per cent of children were stunted, 14 per cent were underweight and 5 per cent experienced wasting, but 39 per cent experienced one or more forms of undernutrition, i.e., anthropometric failure (Vollmer et al., 2017; Pomati et al., 2020). This difference can have implications for the resourcing of programmes to tackle hunger and malnutrition, since policymakers need to know the true extent of the challenge at hand. It is worth noting that conventional indicators can give contrasting information about trends, as shown in Figure 70 (page 50): stunting shows an impressive decline between 2004 and 2015, the decrease is less so for underweight children, and there appears to have been a slight increase in wasting. The CIAF, in taking all indicators into account, presents a clearer picture of trends in child undernutrition in the United Republic of Tanzania.

Gender differences in child undernutrition

When using the CIAF, significant gender differences in nutrition deprivation in the United Republic of Tanzania are apparent: across each round of data, rates of deprivation are greater for boys than for girls (Figure 71, page 52). The gap between the two narrowed between 2010 and 2015 but remained statistically significant in 2015.

Geographic differences in child undernutrition

As with other deprivations, nutrition deprivations show a sharp contrast between urban and rural areas in the United Republic of Tanzania. Figure 72 (page 52) shows how urban children have been, and continue to be, much less likely to be nutrition-deprived than rural children, and also that the gap between these groups has hardly narrowed between 2004 and 2015. What is encouraging is the decrease in undernutrition in both urban and rural areas between 2010 and 2015. As for zonal differences,[20] a more mixed picture emerges (Figure 73, page 52). In some zones, there have been clear improvements as undernutrition fell over time (see South, Lake, Central and Coastal); in other zones, progress has been less pronounced (Southern Highlands, Northern Highlands).

Wealth differences in child undernutrition

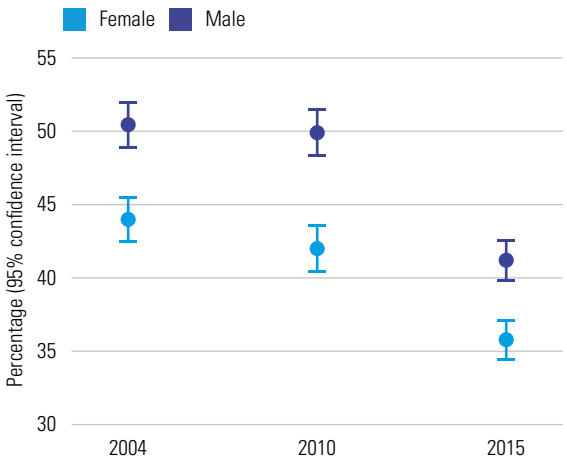
The link between poverty, food insecurity and child undernutrition is well established, and most formal poverty measures incorporate some element of food insecurity. The CIAF developed here confirms that those children in the richest quintile of the wealth asset index[21] for each round of the DHS are far less likely to experience undernutrition (Figure 74, page 53); in fact, they appear to be extremely low outliers, given that children in the remaining four quintiles all have similar and significantly higher rates of undernutrition. Only in 2015 was there a gradient that differentiated the children from the top two quintiles, showing how widespread and persistent undernutrition is across Tanzania.

One aspect that the CIAF measure allows is an examination of different combinations of undernutrition among children in a population. This is important, since certain forms and combinations carry significantly greater risks of mortality and morbidity, with children who experience all three failures – stunting, wasting and underweight – concurrently at an almost 12 times greater risk of premature mortality than children who are not malnourished (McDonald et al., 2013; Pomati et al., 2020). In 2015, 39 per cent of children experienced at least one form of anthropometric failure, 13 per cent of all children suffered from two or more, and 1.5 per cent experienced all three anthropometric failures concurrently. Figure 75 (page 53) shows the relationship between poverty and the different groups of anthropometric failure (i.e., combinations of stunting, wasting and/or underweight) among children

20 To minimize the margin of error, harmonized zones provided with the DHS data were used. The DHSs grouped the different regions as follows. Coastal: Dar es Salaam, Morogoro, Pemba, Pwani, Tanga, Town West and Zanzibar; Northern Highlands: Arusha, Kilimanjaro and Manyara; Lake: Geita, Kagera, Kigoma, Mara, Mwanza, Shinyanga, Simiyu and Tabora; Central: Dodoma and Singida; Southern Highlands: Iringa, Katavi, Mbeya (and Songwe in 2018), Njombe and Rukwa; South: Lindi, Mtwara and Ruvuma.

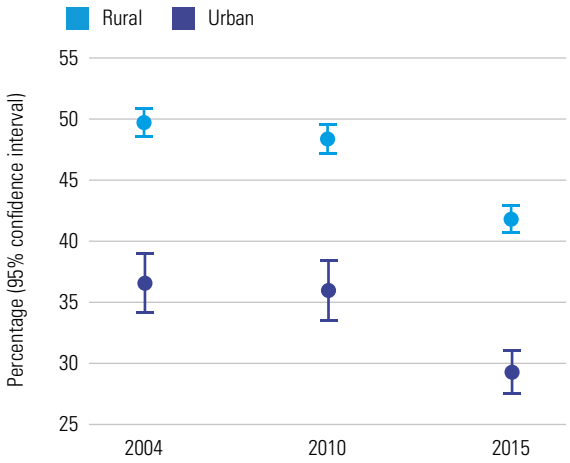
21 The wealth index is a composite measure of a household's cumulative living standard calculated using information on a household's ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities. For more information, see <https://dhsprogram.com/topics/wealth-index/Wealth-Index-Construction.cfm>.

Figure 71: Trends in child anthropometric failure by sex in United Republic of Tanzania, 2004–2015



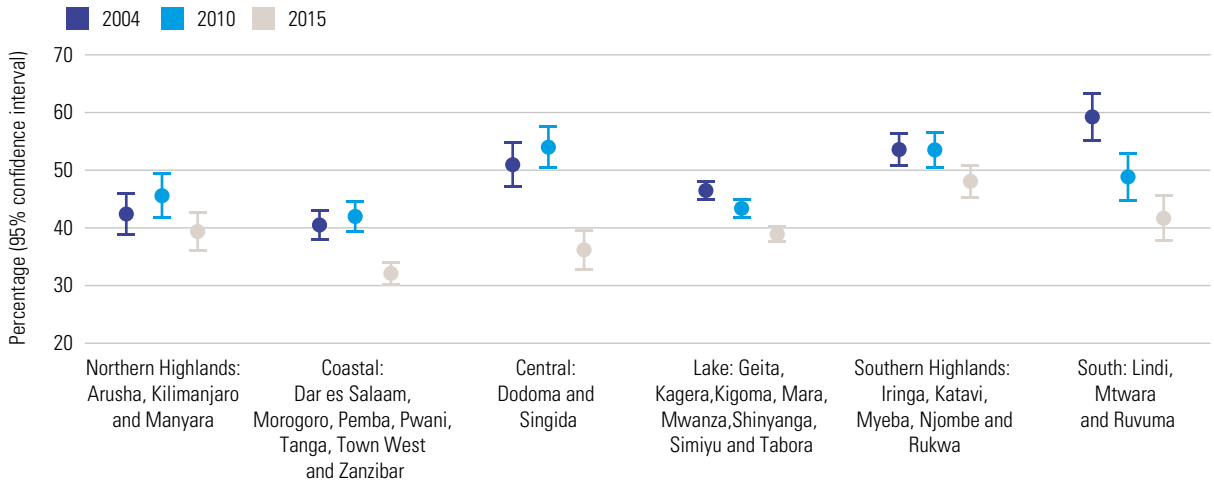
Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

Figure 72: Trends in child anthropometric failure by place of residence in United Republic of Tanzania, 2004–2015



Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

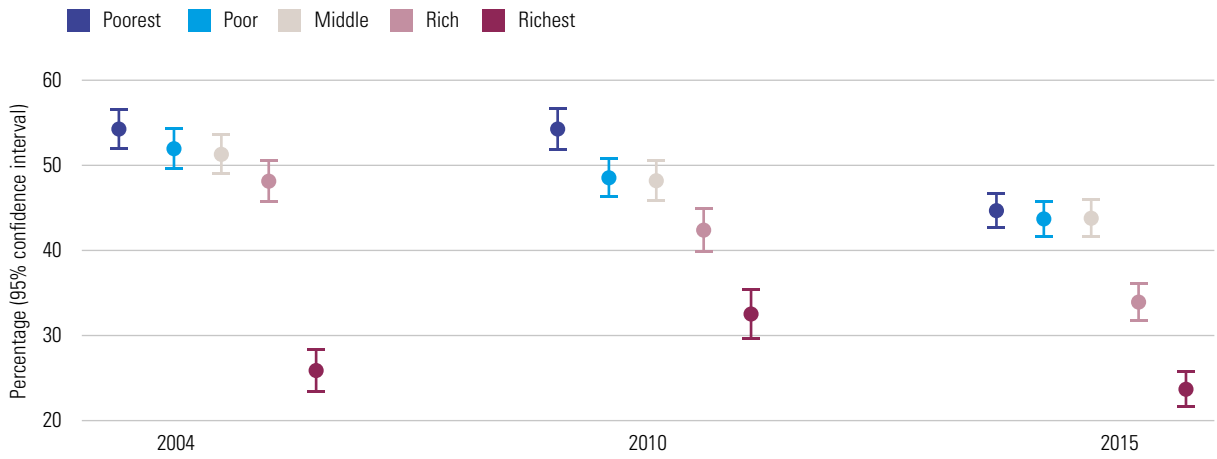
Figure 73: Trends in child anthropometric failure by zone of residence in United Republic of Tanzania, 2004–2015



Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

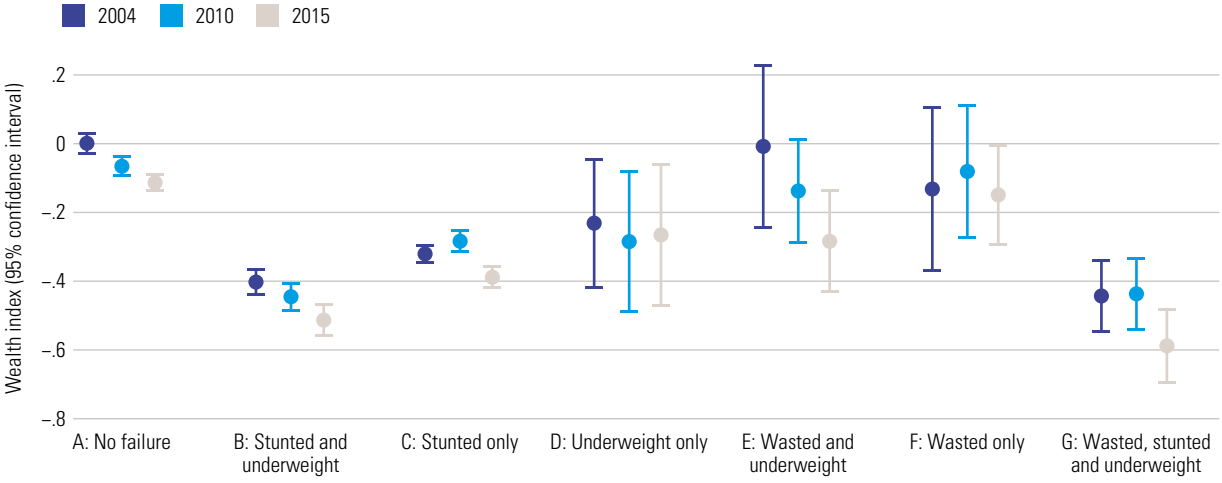
under 5 years in United Republic of Tanzania. In each year, and especially in 2015, children who experienced all three forms of undernutrition at the same time (i.e., group G in Figure 75, page 53) also had the lowest scores on the wealth index (y-axis). Also in 2015, children who simultaneously experienced stunting and were underweight (i.e., group B) represented the next poorest, followed by those who only experienced stunting (i.e., group C). In this way, we can understand the patterning of undernutrition across Tanzania, as these different groups will also have quite different risks of morbidity and thus potential mortality.

Figure 74: Trends in child anthropometric failure by wealth quintile in United Republic of Tanzania, 2004–2015



Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

Figure 75: Association between poverty and groups of anthropometric failure in United Republic of Tanzania, 2004–2015



Source: Authors' analysis of DHS Tanzania data, 2004 (NBS and ORC Macro, 2005), 2010 (NBS and ICF Macro, 2011), 2015 (MoHCDGEC, 2016)

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4 Patterning of deprivation in Mainland Tanzania, 2018

The previous chapter presented trends in the dimensions of child deprivations, as well as the overlaps between individual dimensions and monetary poverty for each year, showing that, in general, large proportions of monetarily non-poor children are in fact deprived across several dimensions.

This confirms earlier work by UNICEF and other researchers (NBS and UNICEF, 2019) that suggests that MD poverty can complete and highlight different aspects that are not exposed by traditional monetary poverty measures, and that many children and their families lack sufficient resources to avoid harmful deprivation, particularly with regard to housing and water and sanitation. It also shows the disparities between urban and rural areas of Mainland Tanzania across harmonized zones.

This chapter focuses on the patterning of deprivation in Mainland Tanzania in 2018, across household-level and individual child-level characteristics. Household-level characteristics include information on the head of the household, such as age, sex, marital status and level of education (a proxy measure of socioeconomic status), and household monetary poverty status. An indicator of household type is also presented, based on the number of adults and children in the household; this is important as it breaks household composition down into policy-relevant groups, showing what types of households are vulnerable or at risk from certain deprivations, e.g., a single parent/adult with more than one child. Child-level characteristics used include age, sex, parental

vital status (alive, dead, living away), whether the child reports a disability, and whether the child is an orphan or vulnerable child. Note that data on certain dimensions are based on household-level data, which may mask intra-household inequalities, if present. Where dimensions are based on individual-level data (e.g., education, protection and health), gender and other disparities may be observed more clearly.

Compared to the trend analysis shown in the previous chapters, we use two additional dimensions, nutrition and protection, available in the 2018 data only. Details regarding their indicators are shown in Table 5 (page 57). The protection dimension detects children who are engaged in child labour (less than 1 per cent in 2018) or who do not have a birth certificate (71 per cent in 2018), while the nutrition dimension identifies children who live in households that consume fewer than three meals a day (46 per cent of all children in 2018).

Data presented in Table 5 (page 57) show the prevalence of child deprivations according to household-level characteristics. Table 6 (page 58) shows child deprivation by individual child-level characteristics. The data are presented as a heat map to differentiate between high and low rates of prevalence, with shades of dark blue showing high deprivation and shades of light blue denoting relatively lower rates of deprivation.

Table 5 (page 57) can be used to see how household-level characteristics relate to deprivation in different dimensions. Children living in rural areas are generally much more likely to be deprived across all dimensions. With regard to the housing dimension, the sex of household heads shows little difference, but their education attainment does, with children in households whose heads have no formal education being much more likely to be deprived (94 per cent, compared to 61 per cent for those with more than primary education). The sex of household heads does, however, appear to matter most with regard to the communication dimension, with female-headed households at particular risk of lacking a telephone (i.e., a difference of more than 10 percentage points, $p < 0.05$).

Marital status of the household head does not appear to afford protection against housing deprivation, although this may relate to the fact that households where the head is married, or partnered, are also likely to be larger in terms of household members, and thus more likely to be overcrowded. This is confirmed by the data lower down in Table 5 (page 57), on household type, where rates of housing deprivation increase with the number of household members and with the number of children relative to adults.

Vulnerability to deprivations based on the age of the household head varies depending on the dimension. Households with younger heads are more likely to be deprived with regard to the protection and education dimensions, while households with older heads are less secure in housing, water and sanitation, education and protection.

Where there is most variation is with regard to household type, a variable was created based on the number of adults and children in the household. One might expect that in households where there are fewer adults and more children strain would be placed on resources, resulting in a greater chance of deprivation. Households with more adults than children, it might be assumed, would have more resources and thus be at less risk of deprivation. If the housing dimension is again taken as an example, it is clear that the lowest rates of deprivation are among households with more adults and fewer children. Given that the indicator for this dimension includes a sub-component of overcrowding, it is worth comparing households in different combinations of the number of adults and children. For example, nearly all households with two adults and more than three children (87 per cent) are housing-deprived, compared to those with two adults and two children (73 per cent).

The protection dimension, introduced in this chapter, shows high prevalence at the national level (71 per cent). It is particularly high among rural households and where the household head has no education. It exhibits a similar relationship with household size. The patterning of deprivation and household size also holds if one considers the mean number of deprivations, which are experienced across all household types, as shown in Figure 76 (page 58).

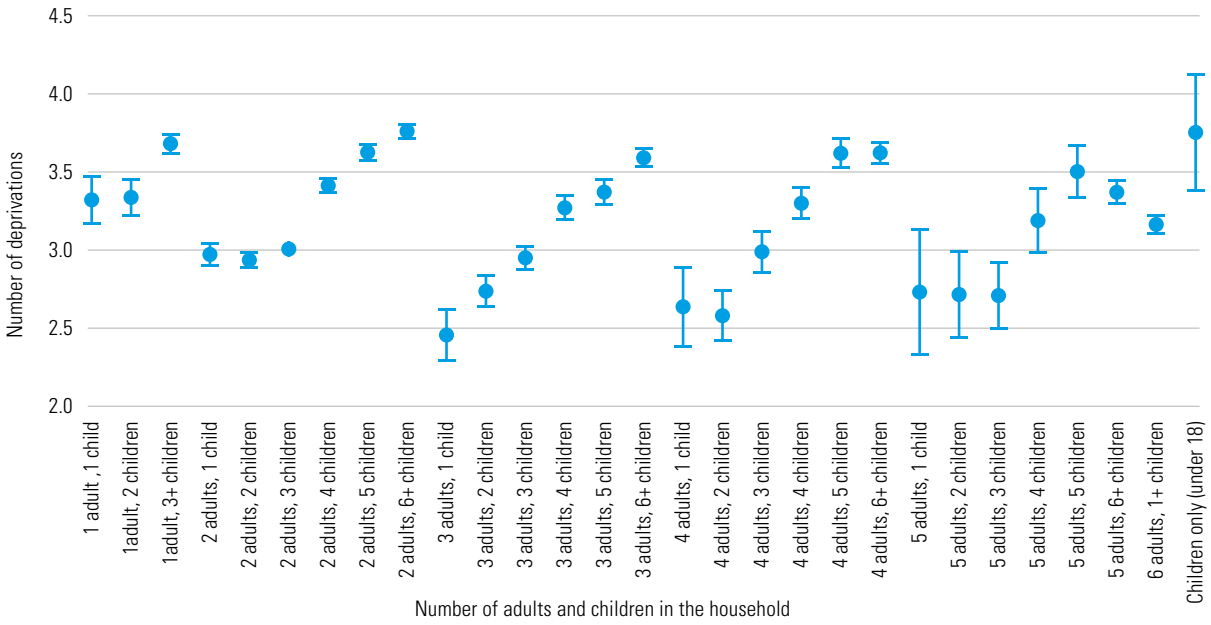
Table 5: Patterning of child deprivations across Mainland Tanzania by household-level characteristics, 2018

	Characteristics*	Housing deprivation (%)	Water and sanitation deprivation (%)	Protection deprivation (%)	Nutrition deprivation (%)	Communication deprivation (%)	Education deprivation (%)	Health deprivation (%)	MD poor (3+) (%)
Household residence	Rural (72%)	91	91	80	52	23	21	4	86
	Urban (exc. Dar es Salaam) (21%)	65	62	53	30	12	16	2	47
	Dar es Salaam (8%)	63	67	39	35	8	14	1	44
Sex of household head	Male (76%)	84	83	71	46	17	18	3	74
	Female (24%)	80	86	71	47	28	22	4	75
Marital status of household head[22]	Married (77%)	84	83	71	46	18	18	3	74
	Widowed (10%)	79	86	70	51	28	23	4	74
Head of household's education attainment	No education (20%)	94	95	82	54	33	22	4	91
	Primary (67%)	84	84	72	48	18	19	3	76
	More than primary (13%)	61	61	48	24	8	15	2	43
Age of head of household	25–34 (18%)	85	84	68	44	20	10	3	72
	35–49 (46%)	82	83	69	46	18	19	3	73
	50–64 (24%)	82	82	74	47	18	25	3	75
	65+ (10%)	84	89	77	49	27	25	3	82
Household type	1 adult, 1 child (2%)	67	85	68	49	36	22	4	70
	1 adult, 2 children (3%)	72	89	62	45	39	24	3	70
	1 adult, 3 or more children (6%)	88	86	79	52	36	22	4	82
	2 adults, 1 child (5%)	71	82	62	44	23	12	3	66
	2 adults, 2 children (9%)	73	81	64	38	20	14	3	63
	2 adults, 3 or more children (36%)	87	86	73	50	21	18	4	78
	3 adults, 1 child (1%)	49	68	52	34	17	25	2	48
	3 adults, 2 children (3%)	66	76	63	33	17	16	3	58
	3 adults, 3 or more children (16%)	87	82	74	48	14	22	3	77
	4 adults, 2 children (1%)	65	69	57	27	13	25	2	54
	4 adults, 3 or more children (8%)	90	86	74	48	16	22	3	81
	5 adults, 3 or more children (4%)	90	82	79	44	7	21	3	81
	6 or more adults, 1 or more children (5%)	92	82	72	39	7	22	3	76
Monetary poverty	Not monetarily poor (70%)	78	80	67	38	15	18	3	67
	Monetarily poor (30%)	95	92	82	66	30	23	3	91
Mainland Tanzania	Mainland Tanzania (100%)	83	83	71	46	20	19	3	74

* The percentage of children with each household-level characteristic is provided in brackets in this column. Values may not add up to 100 per cent because of rounding.
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

22 Other categories such as divorced and separated are not presented as the underlying number of cases is too small.

Figure 76: Mean number of deprivations experienced by children in Mainland Tanzania, by household type, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

Table 6: Patterning of deprivations across Mainland Tanzania by child-level characteristics, 2018

	Characteristics	Housing deprivation (%)	Water and sanitation (%)	Protection deprivation (%)	Nutrition deprivation (%)	Communication deprivation (%)	Education deprivation (%)	Health deprivation (%)	MD poor (3+) (%)
Child's sex	Male (50%)	83	84	71	47	20	20	3	75
	Female (50%)	83	83	71	46	20	18	3	74
Child's age	0–23 months (13%)	85	86	67	45	20	N/A	3	73
	24–59 months (22%)	83	85	64	46	20	N/A	3	71
	5–13 years (47%)	84	84	74	48	21	17	4	76
	14–17 years (19%)	79	79	75	44	17	61	3	76
Child's status	Not orphan or vulnerable child (91%)	83	83	71	46	19	18	3	74
	Orphan or vulnerable child (9%)	82	84	73	47	22	30	4	75
Child has disability	No (96%)	83	83	71	46	20	19	3	74
	Yes (4%)	85	84	77	53	20	30	7	80
Mainland Tanzania	Mainland Tanzania (100%)	83	83	71	46	20	19	3	74

Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

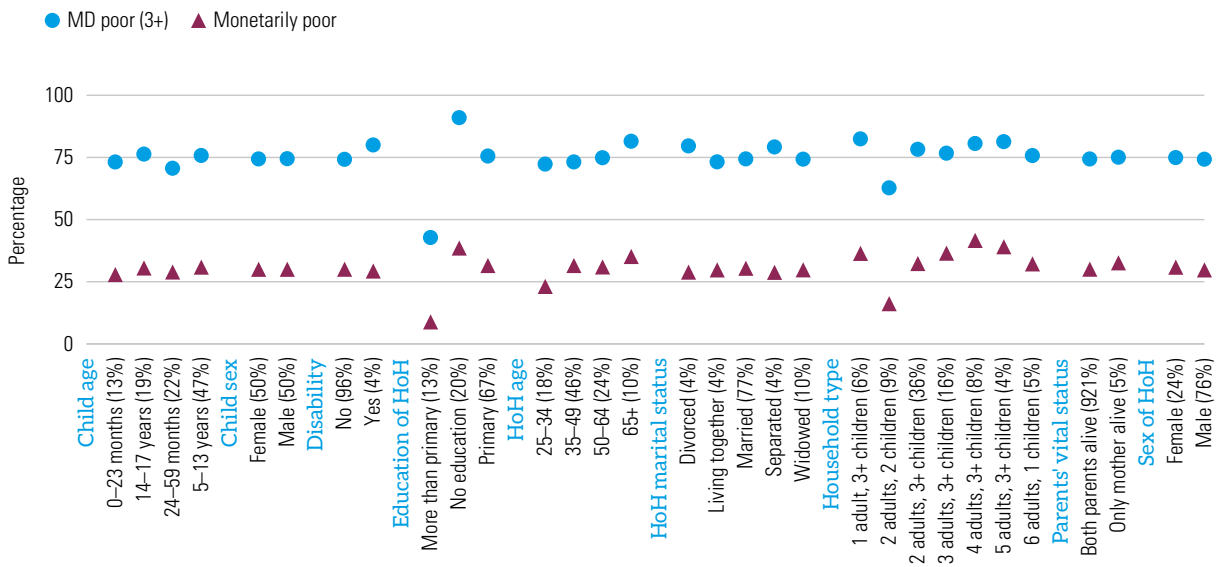
When deprivation is considered based on the characteristics of individual children, there are again interesting patterns. Younger children (aged under 2 years) are more likely to be housing-deprived – due, most likely, to their having younger parents (and younger household heads). Gender differences were only slight, and apparent for education deprivation, with boys more likely than girls to be deprived (20 per cent and 18 per cent, respectively). The most concerning finding, shown in Table 6 (page 58), relates to education deprivation among older children (14–17 years). This is driven by low enrolment and literacy rates for 13–17-year-olds in both urban and rural areas, two issues which have stalled progress in the reduction of education deprivation in the last decade (see Section 3.7, pages 41–48).

Parental vital status shows a more varied relationship across all dimensions, with children who have only their mother alive being considerably more likely to be deprived in the education dimension. The loss of a parent for any child is traumatic and linking information about parental vital status and the risk of deprivation is important. This is especially so when it means the balance of adults and children in the home is affected and the risk of deprivation and poverty is raised.

Disability presents challenges for children everywhere. In Mainland Tanzania, the main challenge is in the education dimension, where children reporting a disability have 1.5 times the rate of deprivation (30 per cent) than those who do not (19 per cent). Rates of deprivation for children with a disability are higher in all the dimensions (housing, water and sanitation, education, health, protection and nutrition) except communication. This should be a clear signal to policymakers to make additional resources available for households with disabled members and to utilize the potential of policies to improve living conditions for all children.

Finally, it is worth reiterating the value of MD poverty measures in highlighting groups that need policy attention over and beyond existing poverty monitoring approaches, such as those that use monetary poverty measures. Figure 77 shows the percentage of children in monetary and MD poverty by the categories explored above. Overall, the figure reiterates that the risk of monetary poverty and MD poverty follows similar patterns, suggesting that both types are poverty are the result of similar drivers.

Figure 77: Percentage of children in monetary and MD poverty by children's characteristics in Mainland Tanzania, 2018



Note: MD poor includes children deprived in three or more dimensions (health, education, communication, water and sanitation, housing, nutrition and protection). MD poor (+3) figures are not comparable to MD poor (+3) figures in the trend analysis of this report. HoH = head of household.
Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

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5 Going beyond monetary poverty

Analysis of the 2018 HBS to assess MD child poverty presents several important messages for policymakers. Firstly, and at the most general level, while the proportion of children exposed to monetary poverty or severe deprivation of basic needs has decreased steadily, it remains the case that a significant share of Mainland Tanzania's monetarily non-poor children also experience deprivation.

Meaningful measures of MD poverty (among children) must continue to reflect both monetary and non-monetary dimensions, but with dimensions, indicators and thresholds for indicators designed with children and their age-related needs in mind. Continued focus on monetary poverty alone misses the unmet needs of substantial numbers of children.

Historically, research has shown the importance of investing in services like health and education, which children are disproportionately reliant on. Investment in Mainland Tanzania has paid off in recent years as demonstrated by the low rates of health and education deprivation. However, there are important issues regarding the quality of information about these deprivations and the quality of services that need to be considered. The data in the HBS with which to construct more reliable measures of health deprivation could be improved to reflect the health status of individuals, their access to services and the quality of those services available. Are children who report being sick and not treated in this position because their households cannot afford to take them to a medical

This report reaffirms the importance of education across all ages, since children in households where the head has no education are considerably more likely to be monetarily or multidimensionally poor than those whose head had a secondary education.

facility, or purchase medication when they are ill? Alternatively, are other reasons (e.g., the accessibility and acceptability of services) provided? Better data to indicate the availability (or lack) of appropriate and affordable health care is recommended.

Finally, improved sources of water and sanitation, as well as good nutrition, are important determinants of child health (Checkley et al., 2004; Schmeer and Piperata, 2017). The high deprivation rates in other dimensions presented in this report, and child mortality rates, are considerably above those of high- and middle-income countries (Sakamoto, 2020; UNICEF Tanzania, n.d.b). The low levels of health deprivation presented in this report are partly due to the dearth of meaningful data on child health, so it is very likely that this report understates the level of health deprivation. A high-level consultation with a range of policymakers and child practitioners would help identify the key challenges Mainland Tanzania's health services face when caring for children and improving the evaluation and monitoring of child health and the quality of universal health coverage for children (SDG 3).

Similarly, for education, while data on enrolment and attendance are now regularly collected in the HBS, additional data on the nature and quality of education received could also be gathered. This could be information about meeting the costs of additional school needs (e.g., uniforms, stationery and school trips). Linking such information to school dropout, early marriage and child work/labour will inform users about the key drivers of education deprivation across different age groups.

This report reaffirms the importance of education across all ages, since children in households where the head has no education are considerably more likely to be monetarily or multidimensionally poor than those whose head had a secondary education. Attendance is important, but so are questions about the quality of education (both in school and at home), and questions to address this gap could be included. In terms of policy recommendations, this would include a continued focus on and investment in getting children into school and preschool, keeping them there and ensuring the quality of education is improved (e.g., through rigorous and certified training of teachers).

In terms of household-related deprivations, it was apparent that overcrowding appears to be a driving factor in shelter deprivation. The importance of this element of the dimension should be apparent, following the impact of the COVID-19 pandemic. Governments around the world are increasingly informed about the importance of housing conditions as part of a suite of indicators providing important information for measures of MD poverty (Amebelu et al., 2021; Brewer et al., 2021; Lu et al., 2022). Tackling overcrowding, for example, would require housing infrastructure investments and the establishment of occupancy standards in Mainland Tanzania. This may prove controversial, initially, given the apparent acceptability of high occupancy rates as evidenced by the rates of overcrowding observed across all consumption quintiles in both urban and rural areas.

Analysis of the HBS shows that Mainland Tanzania has made impressive progress, but there is still work to do. Noticeable disparities exist across the individual regions, and in disaggregating the data, as this report has, policymakers can see most accurately which groups, zones or regions are most exposed to individual elements of MD poverty. Disaggregating data by policy-relevant groups (e.g., household structure, presence of members with additional needs, and orphans and vulnerable children) means gaps and disparities can be observed and addressed, thus meeting the expectations of the SDGs to ensure that no one is left behind in the development process.

Policy focus

Housing and water and sanitation

Analysis of HBS data shows that access to improved and nearby water sources declined between 2007 and 2018, and that the prevalence of deprivation remains high, particularly in relation to sanitation. This is mainly due to the sharing of improved facilities in urban areas, whereas in rural areas deprivation is primarily driven by a lack of access to improved facilities. Continued investment in improving access to non-shared sanitation facilities and ensuring access to improved water sources in both wet and dry seasons is recommended. In housing, overcrowding appears to drive deprivation, alongside the quality of building materials. Grants and financial support to improve the quality of dwellings are obvious policy options (especially in rural areas), as is the construction of affordable housing, which would ease overcrowding in urban areas. Overcrowding has very real implications for children's health and well-being and is an issue that merits significant policy attention.

Nutrition

Nutrition deprivation is investigated primarily by looking at the percentage of children who live in households where fewer than three meals a day are consumed, an indicator that is strongly correlated with overall consumption levels. There are other ways in which household food (in)security is assessed, explored in Section 3.9 (pages 50–52). Anthropometric data from the Tanzania DHS show that urban children have been, and continue to be, much less likely to be nutrition-deprived than rural children.

Communication

Rural areas and outlying districts are most likely to be deprived in this dimension due to a lack of access to either landline or mobile telephones. Although coverage has improved considerably, children in rural areas are almost twice as likely to be deprived than those in urban areas (23 per cent compared to 12 per cent). This suggests that coverage of technologies like mobile telephones should be improved.

Education

Tanzania continues to have issues with education dropout and non-enrolment. Enrolment rates are low among older children. Literacy deprivation levels are relatively low (below 20 per cent) but have not improved significantly for children aged 14 years or older since 2007.[23,24] This points to a need for greater investment in the quality of education. Authorities should also understand why households are unable or unwilling to enrol older children in school, as the reasons may include affordability or acceptability of the services available.

Child protection

The majority of children in Mainland Tanzania in 2018 lacked a birth certificate or did not have their birth registered (SDG 16.9). Birth registration provides a foundation for ensuring children's rights and the analysis in this report shows that children in rural areas and those with parents with low levels of education (no education or only primary education) are considerably more likely to experience this deprivation. Although it is not possible at present to measure child labour in the Mainland Tanzania HBS data, the low levels of enrolment and education of children aged 14 and older suggest that children may be undertaking other activities while missing out on important opportunities to build human capital.

Health

As explained above, the HBS currently lacks information on the quality of important health services and on the provision and affordability of medical treatment. This is likely to result in the underestimation of health problems among children. For example, almost all of Mainland Tanzania's children are exposed to dangerous toxins daily. Over 90 per cent of children in Mainland Tanzania live in households using a polluting fuel, such as coal, crop residue and wood for cooking, which has negative implications for children's health (WHO, 2014b, 2018) and signals a priority area for intervention by government and health agencies. Among households where the head has some tertiary education, deprivation rates in this area are somewhat lower (83 per cent) but are still highly prevalent.

23 The HBS lacks comparable data on literacy for 2018 for those under 14 years of age.
24 See <https://mics.unicef.org/surveys>.

6 Integrating monetary and MD child poverty measures in national statistics

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This report used data from three rounds of the HBS to develop a MODA to show trends in MD child poverty in Mainland Tanzania between 2007 and 2018. It also explored how deprivations across different dimensions overlapped with monetary poverty and how these were patterned across urban and rural areas and regions of Mainland Tanzania.

The HBS provides a means of representing children in official poverty statistics and points to the importance of developing indicators and measures that are designed to reflect their needs and rights as distinct from those of adults. This is important for the development of more effective anti-poverty policies and programmes, and for reporting on progress towards international initiatives, like the SDGs via Voluntary National Reviews, or VNRs (End Child Poverty Global Coalition, 2022).

Many of the MD poverty indicators available in several household surveys, including the HBS, were not created specifically to investigate the needs of children. This does not mean that they do not contribute to our understanding of MD child poverty, but there is great potential for expanding the type and range of child-specific indicators in the HBS.

There are several methods countries can use to assess MD child poverty, including MODA (used in this report), the Multidimensional Poverty Index and variations of the so-called 'Bristol Deprivations Approach'. Such approaches use household survey data, like the HBS or DHS, to present valuable information about which dimensions children


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The Consensual Approach identifies when people are deprived not by choice (e.g., choosing not to have a mobile telephone or television) but by a lack of resources.

experience deprivations in, such as those presented in this report. Although these methods can be applied to data collected in a wide range of surveys, such as DHS, HBS and Multiple Indicator Cluster Surveys,[25] they generally have some shortcomings. Firstly, the deprivation indicators they use are primarily a result of data availability, rather than a reflection of national consensus over children's necessities. Moreover, because of how questions are phrased, it is difficult to know whether children are deprived in certain dimensions because of choice or low levels of household resources. Finally, the cut-off used to identify MD poverty (three in this report) is generally completely arbitrary.

However, other methods and approaches can be used to tackle these issues. These enable countries to develop indicators that directly address SDG 1.2, which calls for measures to reflect poverty in all its dimensions, for children and adults, according to national definitions. One method, called the Consensual Approach, provides real potential, as it allows for meaningful comparison across all country settings (Nandy and Main, 2015; Pomati and Nandy, 2019; Pomati et al., 2020).

The Consensual Approach entails asking the population what they consider to be the necessities of life that no one should be excluded from having or being able to do due to a lack of resources. It asks about material needs (such as clothing, food and housing) and about the ability of people to participate in important customary norms (e.g., looking after sick or elderly relatives and attending funerals and weddings). It also asks if people cannot have items or participate in activities considered necessities by a majority of the population and, if they do not, whether it is due to a lack of resources. As such, the Consensual Approach identifies when people are deprived not by choice (e.g., choosing not to have a mobile telephone or television) but by a lack of resources. It allows for the development of indicators relevant to the needs and rights of children and adults and introduces a democratic element into definitions and measures of poverty (adult and child). Finally, the Consensual Approach uses both consumption and deprivation data to derive a deprivation cut-off, instead of relying on arbitrary decisions. Implementing the

25 See <https://mics.unicef.org/surveys>.

Consensual Approach is straightforward and can be done using existing survey platforms, like the HBS, by introducing a short module of 20–25 questions (see Appendix 3, page 78). The approach was used recently and successfully in Uganda in 2019 (Government of Uganda et al., 2019a, 2019b). Key insights on other important aspects of children's lives are currently poorly reflected in many surveys, including the DHS and HBS, are summarized in Table 7. Further details are also provided in Appendix 1 (page 73).

Table 7: Key requirements for future data collection

Dimension	Additional questions
Health	Tried and tested questionnaire items (Consensual Approach, see Appendix 3, page 78) include: • A visit to a health facility when ill and all the medication prescribed to treat the illness. • A visit to a dentist/optician/specialist when needed and all the treatment prescribed. More information should also be collected on immunization coverage (e.g., whether children received important vaccines, see SDG 3) as well as the level of cover (e.g., health insurance) and care provided for the specific disease that affected the child.
Housing	Tried and tested questionnaire items (Consensual Approach) include: • Enough money to repair a leaking roof for the main living quarters. • Enough money to repair or replace any worn-out furniture. • Enough money to repair or replace broken electrical goods, e.g., a refrigerator. More questions about the reliability of electricity supply to meet children's needs should be developed, for example: • Children can study when it is dark outside.
Nutrition	Tried and tested questionnaire items (Consensual Approach) include: All children in the household have enough resources to consume: • Three meals a day. • A good meal with meat, fish or vegetarian equivalent once a week and on other special occasions. • Fresh fruit and vegetables every day. Anthropometric failure indicators: Stunting, wasting, underweight, double burden (Pomati and Nandy, 2020).
Education	Tried and tested questionnaire items (Consensual Approach) include: • Books at home suitable for the child's age (including reference and story books). • Educational toys and games. • All fees, uniform of correct size and equipment required for school (e.g., books, school bag, lunch or lunch money, stationery). • The ability to participate in school trips or events that cost money. • A desk and chair for homework for school-aged children. • Bus/taxi fare or other transport (e.g., bicycle) to get to school.
Protection	The key priority here is to develop more detailed information on labour activities as well as hours, and types of unpaid work, for each household member. The survey should also collect information on whether and how this affects children's schoolwork and general after-school activities. Better information on paid and unpaid (including domestic) work will lead to a better estimate of child labour, identifying children who are engaged in work unsuitable for their capacities or in work that may jeopardize their education, health or development. The joint International Labour Organization (ILO), UNICEF and World Bank project Understanding Children's Work (<http://www.ucw-project.org/>) currently provides a wide range of research and resources to improve the measurement of child labour.

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7 Conclusions

Mainland Tanzania's children have seen considerable improvements in their living standards. Both MD poverty and monetary poverty among children have decreased substantially since 2007: MD poverty fell from 79 per cent to 49 per cent in 2012, and to 31 per cent in 2018, while child monetary poverty fell from 37 per cent to 30 per cent in 2018. The proportion of children who experienced both monetary and non-monetary poverty fell from 34 per cent to 13 per cent in 2018.

Children in Mainland Tanzania in 2018 benefited from considerable improvements. They were more likely to live in homes made from appropriate materials and have access to an improved toilet, less likely to live far away from a source of water and more likely to have access to an improved one. Their ability to communicate with the outside world via mobile phones also increased considerably. Younger children (7–12 years old) were more likely to be enrolled in school, less likely to be behind in education and have better literacy levels. However, a significant proportion of Mainland Tanzania's children remained exposed to deprivation of important basic needs in 2018.

Despite the remarkable change over just 10 years, 30 per cent of all children still experience deprivation in at least three out of five dimensions. Virtually all children (94 per cent) experience at least one deprivation. Although decreases in monetary and


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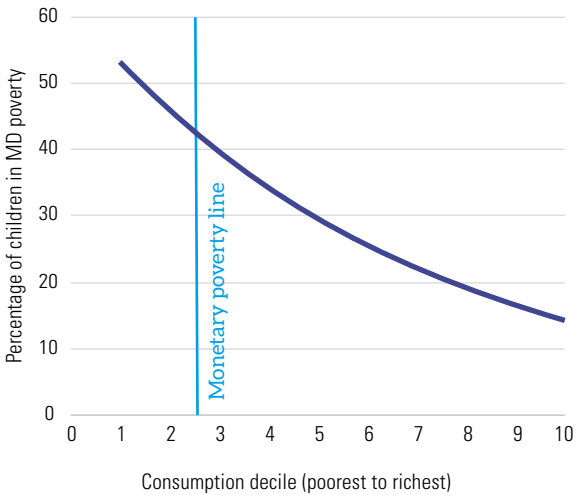
Figure 78: Percentage of children in MD poverty by consumption decile, 2018



Source: Authors' analysis of HBS 2017/18 (NBS, 2020)

non-monetary poverty have been witnessed across regions, variation persists with roughly 35 per cent of all children in the Lake Zone either multidimensionally or monetarily poor, compared to 20 per cent in the Coastal Zone. Moreover, large proportions of monetarily non-poor children are in fact deprived across several dimensions, which suggests that many children and their families clearly lack sufficient resources to avoid harmful deprivations, particular with regard to housing, water and sanitation. There is a clear association between the level of household consumption (the measure used to determine whether households are above or below the monetary poverty line) and child MD poverty (Figure 78).

Children living in households with the lowest levels of consumption are the most likely to be multidimensionally poor, whereas those with the highest level of household consumption are the least likely to be multidimensionally poor.

However, many children who live in households above the poverty line still experience housing, water and sanitation, nutrition, education and other deprivations. It is therefore important to help children through a range of policies, monitor both monetary and MD child poverty and develop more indicators that focus on the specific needs of children.

Overcrowding remains very widespread and has remained unchanged between 2007 and 2018, affecting 71 per cent of children. Levels of water and sanitation and housing deprivation are also still very high, with 78 per cent of children living in dwellings without improved sanitation and a third unable to access improved water sources throughout the year.

Regarding education, a considerable increase in enrolment among younger pupils and a reduction in the percentage of children lagging behind in their education have been recorded. Despite this progress, there is some evidence that enrolment, attendance and literacy have declined among children above the age of 12 years. Looking ahead, much will depend on whether the greater number of enrolled younger children stay in school, which will likely lead to better educational outcomes for older children and lower levels of child labour. Education quality is also clearly an issue, given that children in school still experience literacy deprivation.

Health and communication deprivations remain very low in Mainland Tanzania, although more questions should be developed to investigate these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issues further. Suggestions on how this might be done are presented in Chapter 5 and Chapter 6.

Although comment cannot be made on changes since 2007, information on protection and nutrition deprivations in the 2018 HBS show that 71 per cent of children in Mainland Tanzania lacked a birth certificate or did not have their birth registered (SDG 16.9), despite the fact that this is a crucial foundation for ensuring children's rights. Moreover, roughly half the number of children in Mainland Tanzania live in households that cannot afford for their children to have three meals a day. Although an approximate indicator of nutrition, anthropometric failure, as presented in Section 3.9 (pages 50–53), shows that there was little progress in reducing the percentage of under-five children who were underweight and wasted. Moreover, although the percentage of stunted children decreased between 2004 and 2015, 34 per cent of children still experienced stunting in 2015. This points to widespread undernutrition in children under 5 years of age.

Information on protection and nutrition deprivations in the 2018 HBS show that 71 per cent of children in Mainland Tanzania lacked a birth certificate or did not have their birth registered (SDG 16.9), despite the fact that this is a crucial foundation for ensuring children's rights.

The HBSs, and the human capital and technical expertise within the NBS, represent invaluable resources for bringing together both monetary and MD indicators. By combining these two indicators in one survey, a clear overlap between monetary poverty and child deprivation is evident. It also shows that improving resource levels in Tanzania's households will help improve the living standards of children. However, as shown in this report, important aspects of children's lives, such as living in a non-overcrowded household and having access to suitable water sources, may depend on household characteristics that go beyond household economic resources, such as local infrastructure and local planning.

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Appendices

Appendix 1: Recommendations for future data collection

Housing dimension

In addition to indicators about housing quality and overcrowding, future MODAs should consider inclusion of additional items that households could be asked about. The capacity of a household to keep their dwelling in a good state of repair and safe (e.g., fix a leaking roof or maintain important household items) is important. A household lacking sufficient resources to maintain the integrity of their dwelling, places children at risk of exposure to problems such as damp.

Several countries ask whether households have enough money to:

- repair a leaking roof for the main living quarters;
- repair or replace any worn-out furniture; and
- repair or replace broken electrical goods, e.g., a refrigerator.

Response categories to these questions include options as to whether households lack the resources because they cannot afford them or because they do not want them, and this is important in ascertaining whether the lack of an item is due to poverty (i.e., deprivation) or choice. Distinguishing between when a lack of something is a deprivation or a personal choice is critical for understanding poverty.[26]

Furthermore, a more in-depth set of questions about access to electricity would improve the assessment of housing deprivation. The considerable

26 A copy of the module of questions establishing enforced lack and thus deprivation used in Uganda's National Household Survey is provided in its appendices; items can be modified according to the context of each country (Government of Uganda et al., 2019b).

increase in households connected to the electricity grid, as well as the increased use of solar panels by rural households in the last 10 years, has been documented by the HBS and NBS reports. However, it may be worth considering asking respondents not just whether they have access to electricity, but also whether power is available during the day and night, and whether it is possible to use electrical household goods and lighting when it is dark. Households may be connected to the electrical grid or have solar panels, but these may be inadequate for meeting children's needs (such as being able to study when dark, use of refrigerators for conserving goods, etc.) so specific questions can address the impact of lack of consistent access to electricity on children's needs and development.

Nutrition dimension

Additional questions could be asked of households regarding their food needs and whether a lack is due to choice or insufficient resources. Such questions could ask if the household has enough resources to allow children in the household to consume:

- three meals a day;
- a good meal with meat, fish or a vegetarian equivalent once a week and on other special occasions; and
- fresh fruit and vegetables every day.

These questions directly indicate both the quantity (in terms of number of meals) and quality (regularity of protein, fresh fruit and vegetables) of food consumed by the household and have been shown to be both valid and reliable indicators of food (in)security. Additional questions could ask if caregivers have had to forego food themselves so that their children could eat healthily. A collection of anthropometric data can be used to create three conventional measures of undernutrition. These are low height-for-age, or stunting, a measure of chronic or prolonged food and nutrition deprivation; low weight-for-height, or wasting, a measure of more immediate or acute nutrition deprivation; and low weight-for-age, or underweight, used as a summary measure of stunting and wasting and a key indicator of progress towards SDG 2 on zero hunger.

Communication dimension

The communication dimension is well served by existing questions in the HBS, but as technologies change, young people increasingly make greater use of mobile devices like smartphones. It may also be worth asking directly whether children or young people of secondary school age have their own cell phone or information technology device that they can use for education and social purposes.

Education dimension

Given how vital education is to children's personal and wider development and the fact that the home is a critical location for children's learning, the additional questions suggested are intended to reflect the wider learning environment. These consider whether households have the resources to support children's participation in school activities and also to continue their learning at home. Additional questions could include if households have:

- books at home suitable for the occupant children's ages (including reference and story books);
- educational toys and games;
- all fees, uniforms of correct size and equipment required for school (e.g., books, school bags, lunch or lunch money and stationery);
- the ability to participate in school trips or events that cost money;
- a desk and chair for homework for school-aged children; and
- bus or taxi fares or other transport (e.g., bicycle) to school.

Protection dimension

Protection comes in many forms and the indicators presented here relate to more formal processes (e.g., birth registration). Other important forms of protection relating directly to children's physical needs that could be considered include whether they have sufficient clothing for everyday and occasional needs (e.g., clothes for attending important social events like weddings, funerals and birthdays), such as:

- two pairs of properly fitting shoes, including a pair of all-weather shoes;
- some new clothes (not second-hand or handed on/down); and
- two sets of clothing.

Moreover, detailed information on labour activities and unpaid work (including household chores) for each household member will likely improve estimates of child labour. ILO Conventions 138 and 182, as well as the joint ILO, UNICEF and World Bank project Understanding Children's Work, provide a wide range of research and resources to improve the measurement of child labour (Guarcello et al., 2010; Understanding Children's Work, n.d.). This body of literature and surveys, such as UNICEF's Multiple Indicator Cluster Surveys, provide age-specific criteria for categorizing the type and amount of paid and unpaid work as child labour.

Finally, special consultation of experts and policymakers in labour, education, mental and physical health and child development, as well as members of the public, could lead to a better understanding of the types of work that may jeopardize children's education, health and general development in the specific context of Mainland Tanzania. This would lead to the collection of better information in the HBS for the measurement of child labour.

Health dimension

Assessing health deprivation consistently and comparably is challenging and it may be that the HBS does not contain the data with which to do this. The DHS may contain more direct information or more variables at child level than the HBS. It is also important that questions intended to reflect access to health care relate to factors that shape demand for health care, including accessibility, acceptability and affordability. Thus, the suggested questions ask households if they are able to afford:

- a visit to a health facility when ill and all the medication prescribed to treat the illness; and
- a visit to a dentist/optician/specialist when needed and all the treatment prescribed.

Making clear if households lack this as a result of choice, lack of resources or lack of relevant local facilities would provide a clearer indicator of deprivation for this important dimension.

Appendix 2: Further details on selection of indicators

The final list of indicators in Table 1 (page 15) is the result of a long process that involved input and consultation with the NBS to provide robust and comparable estimates of changes in indicators between 2007 and 2018. Comparable data availability was the main limiting factor.

For example, with regard to birth registration, HBS data showed a mixed picture, with a large increase in the percentage of children lacking a birth certificate or whose birth had not been registered, from roughly 72 per cent in 2007 to over 80 per cent in 2012, then followed by a decrease to 71 per cent in 2018. This pattern seems unlikely to reflect real changes and may be due to how questions were asked and data collected. Given recent improvements and the roll-out of decentralized birth registration systems in Mainland Tanzania (Bedasa, 2016), the rates of birth registration reported in the HBS should be treated with caution. As such, and to err on the side of caution,[27] this indicator was dropped from the time series MODA and was only used in Chapter 4.

As for child labour, given a lack of detailed information on labour activities for each household member in the HBS, rates of child labour (defined as a child not attending school because he or she is engaged in labour activities) are less than 1 per cent across all age groups. This seems unlikely given more focused analyses on child labour using other survey data (e.g., the 2014 National Child Labour Survey (NCLS) and related 2016 analytical report (ILO and NBS, 2016)), point to much higher


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27 "On 22 September 2016, the Government of Tanzania with the support of UNICEF and Canadian Government funding, launched a decentralized birth registration initiative for under-five children. This initiative aims to make registration of births accessible and affordable and targets granting the 'first legal right' to more than 230,000 under-five children in two regions, Iringa and Njombe. Within four weeks of the launch, this initiative has registered more than 220,000 under-five children in Iringa and Njombe regions. From a baseline of 10.3% of under-five registration, the rate has gone up to over 95%." (Bedasa, 2016). See also UNICEF Office of Innovation (2015) and UNICEF Tanzania (n.d.a)..

rates (over 30 per cent) when more detailed labour engagement information is factored in.

Rates of early marriage were also not reported. Based on the HBS, rates of early marriage were very low (e.g., 3 per cent in 2018). While this may be corroborated by National Panel Survey data (NBS and UNICEF, 2019), more focused studies suggest that the prevalence can be as high as 30 per cent (NBS and ICF Macro, 2011). So, while this is clearly an important issue, reliance on the HBS to assess prevalence is problematic. Initial analyses suggest that rates are consistently low across gender/age groups. Such low rates mean examination of overlaps with other dimensions and with monetary poverty will not be reliable.

The information to compute a comparable indicator of handwashing is unavailable in the 2007 HBS. Moreover, initial analysis shows that among children experiencing deprivation of sanitation facilities (i.e., who lack access to improved sanitation), 85 per cent also lack adequate handwashing facilities. Given this substantial overlap, and the lack of data for 2007, this report will comment on the handwashing facilities indicator, but only use a sanitation indicator in the calculation of MD poverty.

Traditionally, one-year MODAs have also included an information deprivation indicator (defined as lacking books, television and radio). Given a general increase in access to the internet and online learning materials and following an initial analysis of trends, it was argued that this indicator as originally designed is not comparable across time and is now of limited value. This is also because the survey contains limited detail about the types of books in the household and which types of television and radio programmes are consumed. Instead, the focus turned to household capacity to communicate using technologies like telephones (landline or mobile), which could be consistently compared between 2007 and 2018.

It was also agreed not to include cooking fuel as an indicator in the main analysis. This indicator refers to the percentage of children who live in households where a polluting fuel is used for cooking. Such fuels include coal, crop residue and wood. Given the impact on children's health of burning dirty fuels (WHO, 2014b, 2018), this is an important indicator. However, over 90 per cent of children in Mainland Tanzania live in such households, with most cooking done outdoors. The HBS lacks important information about ventilation within the home and the frequency of cooking with polluting fuels, and so this indicator is not particularly useful for overlap or trend analysis. This deprivation will be discussed when considering future challenges and how to include suitable questions in future HBSs to improve this indicator.

Given that only one year of data on food insecurity was available, this indicator was excluded from the analysis. Instead, a detailed trend analysis of changes in stunting and wasting is provided.

Finally, the analysis did not cover whether children had malaria or diarrhoea. From a conceptual point of view, it was agreed that the focus should be on unmet medical needs. Consequently, an indicator of unmet medical-care need when ill with malaria, diarrhoea, anaemia, pneumonia, eye or skin diseases and accidents was adopted.

Appendix 3: Potential additional questions, based on the Consensual Approach

Children's items (relevant to household members under 18 years of age)

Please say whether you think each of the following is essential for all children (under 18 years) to be able to afford in order for them to enjoy an acceptable standard of living in [COUNTRY] today. If you think it is essential, please say 'ESSENTIAL'. If you think it is desirable but not essential, please say 'DESIRABLE'. If you think it is not essential and not desirable, please say 'NEITHER'. So, the three possible answers are 'ESSENTIAL', 'DESIRABLE' or 'NEITHER'.

Item	Essential	Desirable, but not essential	Neither	Don't know	Have it	Don't have, can't afford	Don't have, don't want	Don't have, for another reason	Don't know/ N/A
QC1. Three meals a day	1	2	3	8	1	2	3	4	8
QC2. Two pairs of properly fitting shoes, including a pair of all-weather shoes	1	2	3	8	1	2	3	4	8
QC3. Toiletries to be able to wash every day (e.g., soap, hairbrush/ comb)	1	2	3	8	1	2	3	4	8
QC4. Books at home suitable for their age (including reference and story books)	1	2	3	8	1	2	3	4	8
QC5. Some new clothes (not second-hand or handed on/down)	1	2	3	8	1	2	3	4	8
QC6. Educational toys and games	1	2	3	8	1	2	3	4	8
QC7. A visit to a health facility when ill and all the medication prescribed to treat the illness	1	2	3	8	1	2	3	4	8
QC8. Own bed	1	2	3	8	1	2	3	4	8
QC9. Own blanket	1	2	3	8	1	2	3	4	8
QC10. Two sets of clothing	1	2	3	8	1	2	3	4	8
QC11. Presents for children once a year on special occasions, e.g., birthdays, Christmas, Eid	1	2	3	8	1	2	3	4	8
QC12. All fees, uniform of correct size and equipment required for school (e.g. books, school bag, lunch/ lunch money, stationery)	1	2	3	8	1	2	3	4	8
QC13. Participation in school trips or events that cost money	1	2	3	8	1	2	3	4	8
QC14. A desk and chair for homework for school-aged children	1	2	3	8	1	2	3	4	8

Item	Essential	Desirable, but not essential	Neither	Don't know	Have it	Don't have, can't afford	Don't have, don't want	Don't have, for another reason	Don't know/ N/A
QC15. Bus/taxi fare or other transport (e.g., bicycle) to get to school	1	2	3	8	1	2	3	4	8
QC16. Own room for children of different sexes older than 10 years	1	2	3	8	1	2	3	4	8
QC17. Some fashionable clothes for secondary-school-aged children	1	2	3	8	1	2	3	4	8
QC18. Own cell phone for secondary-school-aged children	1	2	3	8	1	2	3	4	8

Note: N/A = not applicable

Household items (relevant to all household members)

Please say whether you think each of the following is essential for everyone to be able to afford in order for them to enjoy an acceptable standard of living in [COUNTRY] today. If you think it is essential, please say 'ESSENTIAL'. If you think it is desirable but not essential, please say 'DESIRABLE'. If you think it is not essential and not desirable, please say 'NEITHER'. So, the three possible answers are 'ESSENTIAL', 'DESIRABLE' or 'NEITHER'.

Item	Essential	Desirable, but not essential	Neither	Don't know	Have it	Don't have, can't afford	Don't have, don't want	Don't have, for another reason	Don't know/ N/A
QH1. Enough money to repair or replace any worn-out furniture	1	2	3	8	1	2	3	4	8
QH2. Enough money to repair or replace broken electrical goods, e.g., a refrigerator	1	2	3	8	1	2	3	4	8
QH3. To be able to make regular savings for emergencies									
QH4. To be able to replace broken pots and pans for cooking	1	2	3	8	1	2	3	4	8
QH5. Enough money to repair a leaking roof for the main living quarters	1	2	3	8	1	2	3	4	8
QH6. Own means of transportation (e.g., car, bike, motorcycle, etc.)	1	2	3	8	1	2	3	4	8

Note: N/A = not applicable

Potential additional household items

- Beds and bedding for everyone in the household
- Making regular savings for emergencies

Adult items (relevant to household members aged 18 years and older)

Please say whether you think each of the following is essential for every adult (18+ years) to be able to afford in order for them to enjoy an acceptable standard of living in [COUNTRY] today. If you think it is essential, please say 'ESSENTIAL'. If you think it is desirable but not essential, please say 'DESIRABLE'. If you think it is not essential and not desirable, please say 'NEITHER'. So, the three possible answers are 'ESSENTIAL', 'DESIRABLE' or 'NEITHER'.

Item	Essential	Desirable, but not essential	Neither	Don't know	Have it	Don't have, can't afford	Don't have, don't want	Don't have, for another reason	Don't know/ N/A
QA1. A visit to a health facility when ill and all the medication prescribed to treat the illness	1	2	3	8	1	2	3	4	8
QA2. Toiletries to be able to wash every day (e.g., soap, hairbrush/ comb)	1	2	3	8	1	2	3	4	8
QA3. Two pairs of properly fitting shoes, including a pair of all-weather shoes	1	2	3	8	1	2	3	4	8
QA4. A small amount of money to spend each week on yourself	1	2	3	8	1	2	3	4	8
QA5. Replace worn-out clothes by some new (not second-hand) ones	1	2	3	8	1	2	3	4	8
QA6. Get together with friends/ family (relatives) for a drink/meal at least once a month	1	2	3	8	1	2	3	4	8
QA7. Celebrations on special occasions, such as Christmas, Eid	1	2	3	8	1	2	3	4	8
QA8. Attend weddings, funerals and other such occasions	1	2	3	8	1	2	3	4	8
QA9. Access to safe, reliable public transport, such as buses and boats	1	2	3	8	1	2	3	4	8
QA10. Enough money to pay school fees for children	1	2	3	8	1	2	3	4	8
QA11. Enough money to take children to a medical facility when sick	1	2	3	8	1	2	3	4	8

Note: N/A = not applicable

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