Multidimensional and monetary poverty among children in Burundi

Final report

December 2022

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for every child

Acknowledgments

The study on the analysis of monetary and multidimensional child poverty is the result of a participatory process between the Government of Burundi and UNICEF and is part of the thematic analyses carried out by the National Institute of Statistics of Burundi (INSBU) following the implementation of the Integrated Survey on Living Conditions of Burundian Households 2019/2020 (EICVMB)

This study is the result of a process led by a technical team composed of various ministries including the Ministry of Finance, Budget and Economic Planning, the Ministry of Public Health and AIDS Control, the Ministry of National Education and Scientific Research, the Ministry of National Solidarity, Social Affairs, Human Rights and Gender, the Ministry in charge of Youth, INSBU and the University Research Center for Economic and Social Development of the University of Burundi, with the support of UNICEF Burundi.

Social Policy Research Institute (SPRI), an international research institute, was recruited to accompany this study. Our thanks go to the entire team of this institute.

The study also benefited from input of colleagues at UNICEF Burundi, the UNICEF Eastern and Southern Africa Regional Office (ESARO), the UNICEF Innocenti Research Office, and UNICEF headquarters in New York.
Our thanks go to all those who contributed, in one way or another, to the production of this document, which will serve to better position the issue of child poverty and deprivation at the heart of Burundi's policies, strategies, and development programs.

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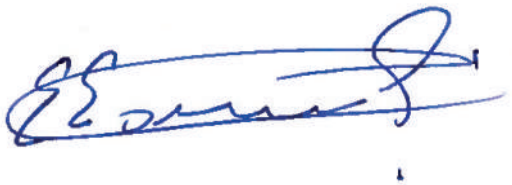

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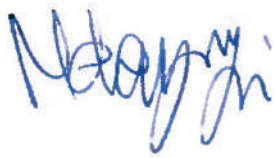

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Acronyms and abbreviations

EICVMB	Integrated Survey on Households Life Conditions in Burundi – *Enquête Intégrée sur les Conditions de Vie des Ménages au Burundi*
INSBU	National Institute of Statistics in Burundi
IYCF – ANJE	Infant and Young Child Feeding – *Alimentation du Nourrisson et du Jeune Enfant*
MODA	Multiple Overlapping Deprivations Analysis
NDP	National Development Plan
OPHI	Oxford Poverty and Human Development Initiative
PSAMAN II	Strategic Multisectoral Plan for Food Security and Nutrition 2nd generation 2019–2023
SDG	Sustainable Development Goals
SMART	Specific, Measurable, Achievable, Relevant, and Time-Bound
SPRI	Social Policy Research Institute
STATA	Statistical Analysis Software
UNDAF	United Nations Development Assistance Framework
UNICEF	United Nations Children's Fund
UNSDCF	United Nations Sustainable Development Cooperation Framework
WHO	World Health Organisation

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Foreword

Burundi continues to implement its National Development Plan 2018-2027 with the objective of achieving a transformation of its economic, demographic and social structures.

Among the tools for implementing the NDP is the National Program for the Consolidation of Peace, Social Stability and the Promotion of Economic Growth (PNCP-SS-PCE), which aims to consolidate peace and socio-economic stability by promoting robust, sustainable and inclusive economic growth and improving the living conditions of the population as a whole, as well as of all vulnerable persons.

Children in Burundi represent nearly half of the total population (Burundi National Institute of Statistics, 2010-2050 population projections) and many live in poverty. Chronic malnutrition affects 55.8% of children under the age of five (SMART 2022 survey) and mortality rates are still too high (52.6% per 1,000 births, health statistics directory).

The Burundi Monetary Poverty and Deprivation Analysis (N-MODA) provides a critical mass of analytical information on child poverty and vulnerability disaggregated by age, gender, residence, province, education, and socioeconomic well-being.

This analysis also provides a basis for improving knowledge about child poverty, understanding the nature and factors of vulnerability among children, and profiling poor children and families. It will thus help support the prioritization of children's needs in sector strategies, policies, programs and budgets at national and provincial levels.

The analysis of monetary poverty and child deprivation in Burundi is part of the thematic analyses planned by the Institut National de la Statistique du Burundi (INSBU) following the implementation of the 2019/2020 Burundi Integrated Household Living Conditions Survey (EICVMB 2019/2020). This analysis is the second of its kind after the 2017 survey.

The Ministry of Finance, Budget and Economic Planning would like to thank the technical team made up of officials from the Ministry of Finance, Budget and Economic Planning, the Ministry of Public Health and the Fight against AIDS, the Ministry of National Education and Scientific Research, the Ministry of National Solidarity, Social Affairs, Human Rights and Gender, the Ministry in charge of Youth, the National Institute of Statistics of Burundi and the University Research Center for Economic and Social Development, with the support of UNICEF, which conducted this study.

Hon. Audace NIYONZIMA

Ministre des Finances, du Budget et de la Planification Economique

Minister of Finance, Budget and Economic Planning

Preface

Burundi is at a key moment in its development and is pursuing structural reforms to consolidate the productive bases of its economy, improve the business climate and revive economic activity. However, this development agenda has been disrupted by the outbreak of the COVID-19 pandemic as well as the difficult economic context induced by the war in Ukraine.

With 47% of its population aged 17 years or less, Burundi cannot adequately plan this development process if it does not know with some precision the poverty profile of this segment of its population. This is especially true since this age group is the one most at risk of being affected by the many poverty-induced deprivations in the various essential areas of their well-being, namely education, health, food, protection, water, sanitation, housing and information.

This analysis is timely, as it updates the child poverty profile based on the 2019-2020 MWIS data, in order to understand children's deprivations, inform policymakers about their situation, and lead reflections to put in place policies and strategies for the country's development that aim to address the identified deprivations.

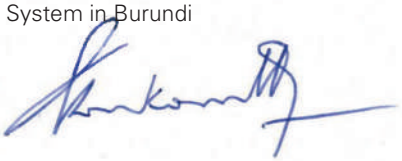
The methodology used is the Multiple Deprivation Overlap Analysis (MODA). MODA focuses on child poverty using the child as the unit of analysis and makes original contributions to the debate on multidimensional poverty by using (i) a holistic child-centered approach, (ii) a «life-cycle» approach, recognizing that children's needs are not homogeneous during their childhood and (iii) the creation of profiles of deprived children. This method makes it possible to measure and analyze the incidence, intensity and severity of multidimensional poverty according to the geographical location, the characteristics of the children, the households to which they belong and their mothers, with a sectoral analysis on the one hand and a multidimensional analysis on the other.

This analysis also contributes to the establishment of a status report on the situation of Sustainable Development Goal 1 in Burundi.

We encourage all partners - Government, United Nations, civil society, and development partners - to use the elements contained in this report to inform the decision-making process and the development of programs for children, with a view to accompanying Burundi in achieving the 2030 Sustainable Development Goals.

John Agbor
Representative of UNICEF in Burundi

Damien Mama
Resident Coordinator of the United Nations System in Burundi



Executive summary

Burundi faces high poverty rates; however, the country continues to put in place strategies to achieve its poverty reduction goals.

Considering the aftermath of the global pandemic, it is important to identify the most vulnerable populations in Burundi, especially children.

A thorough understanding of the nature of child poverty is essential to inform policy and to develop appropriate programs, to ensure a better childhood and future for these children.

As a result, UNICEF Burundi commissioned a study on multidimensional and monetary child poverty.

This study focuses on child poverty in Burundi.

Poverty is defined, measured and analyzed from two different perspectives:

- monetary poverty, and
- multidimensional deprivation (non-monetary poverty), using the Multiple Overlapping Deprivation Analysis (MODA) methodology developed by the UNICEF Office of Research in Florence.[1]

The analysis of the multidimensional child poverty using the National-MODA (N-MODA) in Burundi was done in several stages:

1. The contextualized selection of dimensions, indicators, thresholds and age groups (Figure 1).

The selection of parameters, age groups, dimensions, indicators and thresholds identified during a national workshop, in May 2022, bringing together all stakeholders from several sectoral Ministries at the national level, including the University of Burundi, under the coordination of the National Institute of Statistics in Burundi (INSBU) with the support of UNICEF.

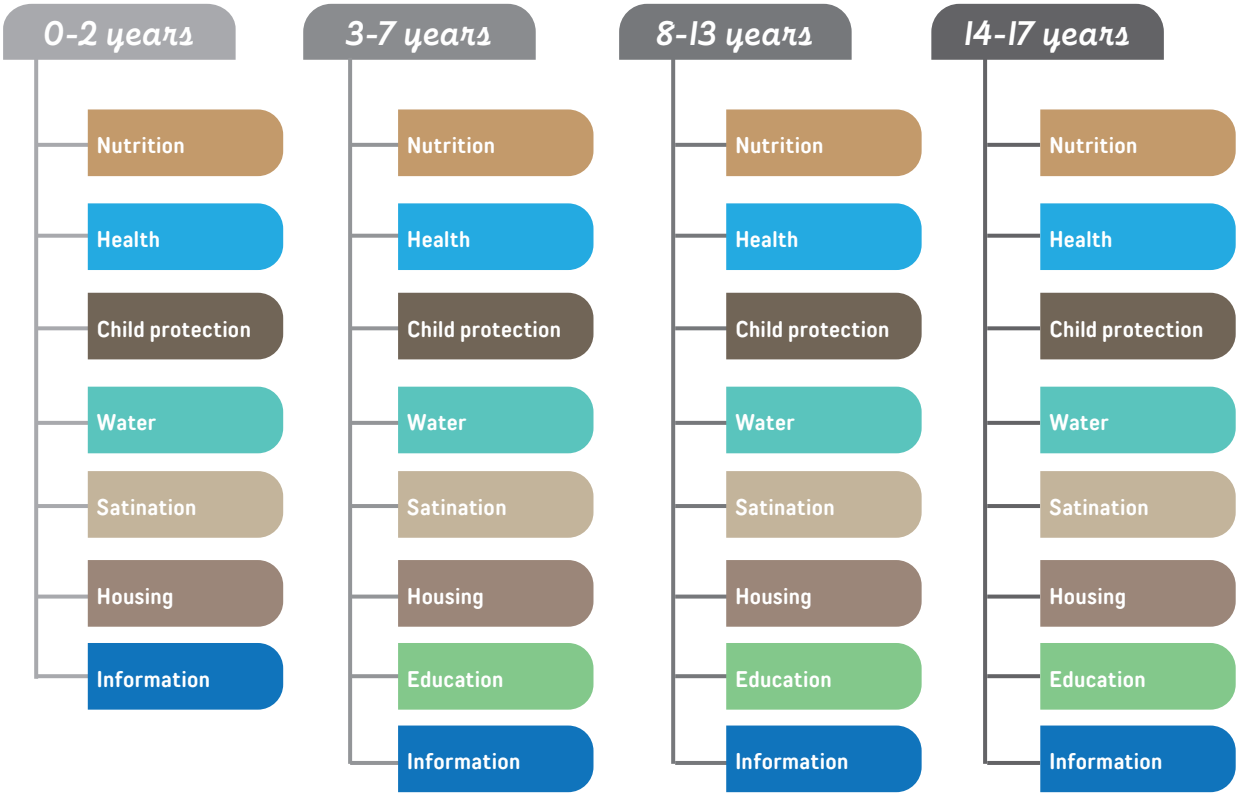
2. For each of the age groups, the following analyses were produced:

- **Sectorial analysis:** The percentage of deprived children for each dimension and indicator has been calculated to inform on performance at the sectoral level.
- **Multidimensional analysis:** the number of deprivations for each child are counted to illustrate the distribution of the number of deprivations suffered by children in each age group and according to their profiles. This subsequently allowed an analysis of the intensity and overlap of multidimensional deprivation among children.

The dimensions of well-being retained for each age group in the context of Burundi are illustrated in Figure 1. For the non-monetary poverty analysis, a child is considered to be multidimensionally deprived if he/she suffers from at least three out of seven/eight dimensions of well-being listed below (K=3)[2].

The data used for this analysis comes from the Integrated Household Living Conditions Survey of Burundi (EICVMB - Enquête Intégrée sur les Conditions de Vie des Ménages au Burundi) carried out in 2019/2020 by the National Institute of Statistics in Burundi (INSBU).

Figure 1: Selection of the dimensions of well-being by age group for children in Burundi



1. De Neubourg, C., J. Chai, M. de Milliano, I. Plavgo, et Z. Wei (2012), « Step-by-Step Guidelines to the Multiple Overlapping Deprivation Analysis», Working document n° 2012-10, UNICEF Office of Research, Florence.
2. The MODA methodology defines K as a poverty threshold for the multidimensional deprivation analysis. For example, K=3 means that a child is considered poor if he/she is deprived in at least three dimensions of his/her well-being.

Key results

Based on the results, it was found that child poverty remains widespread in Burundi. This report on child poverty, which includes monetary and non-monetary analysis, gives a clearer picture of the situation of Burundian children. This study can help design appropriate policies to meet the needs of the most disadvantaged children. The main results of the study are summarized below.

Non-monetary poverty in Burundi is higher than monetary poverty.

The analysis of child poverty in Burundi shows different results depending on the measure of poverty.
By using the national monetary poverty line of 1,580 Fbu per day and per adult equivalent, we obtain a child poverty rate of 55.3%, while with the multidimensional approach, the child poverty rate rises to 64%.

There is thus a gap of 10 percentage points between monetary poverty and non-monetary poverty. However, there is a significant overlap[3] between monetary and non-monetary poverty (see Figure 2).
Indeed, 41.4% of children aged 0 to 17 are poor both monetarily and non-monetarily (multi-dimensionally), and 22.2% of children are considered not poor.

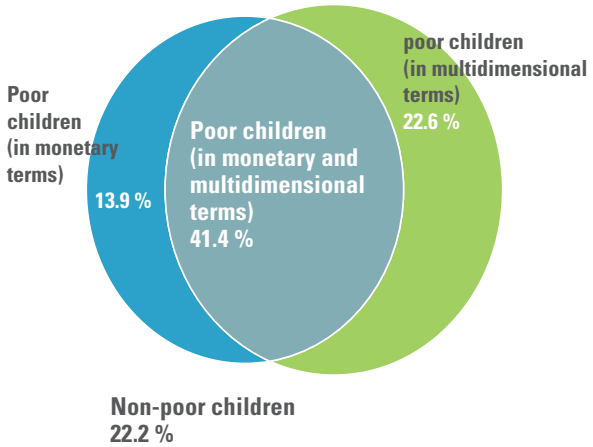
Figure 2 indicates the following observations:

- Non-monetary child poverty stands at 64,0% in Burundi. Of these children, 22.6% are only multidimensionally poor and not monetary poor.

These children therefore live in households having an income of more than 1580 Fbu per day per adult equivalent, but are deprived in at least 3 of the 7/8 dimensions of child well-being analyzed in this study.

- Among the 55.3% of children who are monetarily poor, only 13.9% do not experience multidimensional deprivation additionally. It means that these children live in households having less than 1580 Fbu per day per equivalent adult but are not yet multidimensionally poor.

Figure 2: Overlap between monetary and multidimensional poverty[4]



3. Overlap is the state of two things, one of which partially overlaps the other. The term «overlap» is used repeatedly in this study and is central to the MODA methodology. Income and non-income poverty overlap. Also, deprivations in the dimensions of child well-being often overlap (are experienced simultaneously). In other words, a single child may be deprived in several dimensions of well-being at once.
4. Non-monetary child poverty in Burundi stands at 64% (22,6%+41,4%) and monetary poverty at 55,3% (13,9% + 41,4%)..

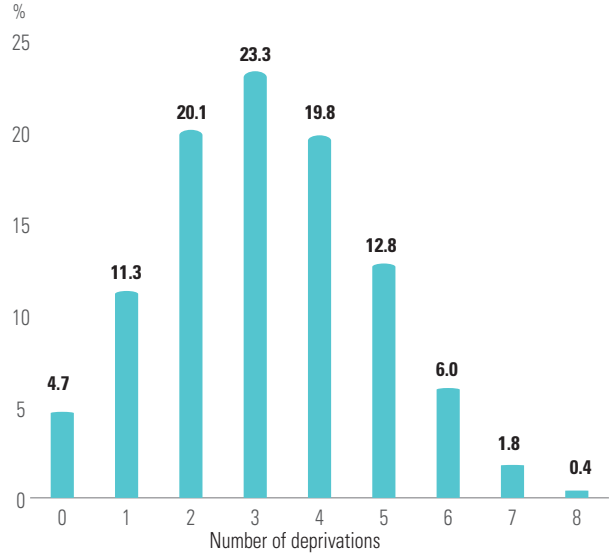
The multidimensional approach to child poverty makes more sense than the sectoral approach in the Burundian context.

A small proportion of children, 11.3%, are deprived in only one dimension of child well-being (see Figure 3). However, the majority suffer from several deprivations at the same time. More specifically, 84.1% of children face at least two deprivations out of the eight dimensions analyzed. Note that 95.3% of children face at least one deprivation and 64% are endure three or more deprivations. Given the intensity of the overlap, coherent policies would be more effective if addressing several deprivations at the same time. In addition, the harmonization of sectoral policies will make possible to achieve economies of scale and reduce administrative costs, but also to better target the most deprived children, i.e. those who are deprived simultaneously in several dimensions of their well-being.

The 'Nutrition' and 'Sanitation' dimensions have the highest proportions of deprived children.

The results obtained show that a very high percentage of children are deprived in the «Nutrition» and «Sanitation» dimensions, for all age groups. This situation is mainly driven by the 'Food insecurity' and 'Unimproved toilet' indicators. The latter is due to the widespread use of traditional pit latrines without slab, a type of toilet considered as a deprivation in this analysis.
Among the sectoral results, we note the increase in deprivation within the 'Child Protection' dimension, especially for the older age groups. This dimension is constructed out of two indicators. One of them is child labour, which generally increases for older children, while the other is birth registration. More and more infants have birth certificates, compared to older children. This is important for access to public services such as education and health service.

Figure 3 : Deprivation distribution, 0-17 years



Profiles of multidimensionally poor children.

In addition to the geographical location, the profile of vulnerable children was studied on the basis of the socioeconomic characteristics of their households. Results show higher deprivation rates for children living in smaller households and/or in households where there is a work constraint[5]. This can be explained by the lack of adults having a paid employment. Also, children without health insurance are more deprived. However, the report could not conclude on the gender issue, because few indicators were available at the child level, resulting in a lack of variance.

5. The labor force constraint is a variable that indicates the number of people in a household who are depending on members who are active in the labor market. This indicator thus divides the number of non-working persons by the number of working persons.

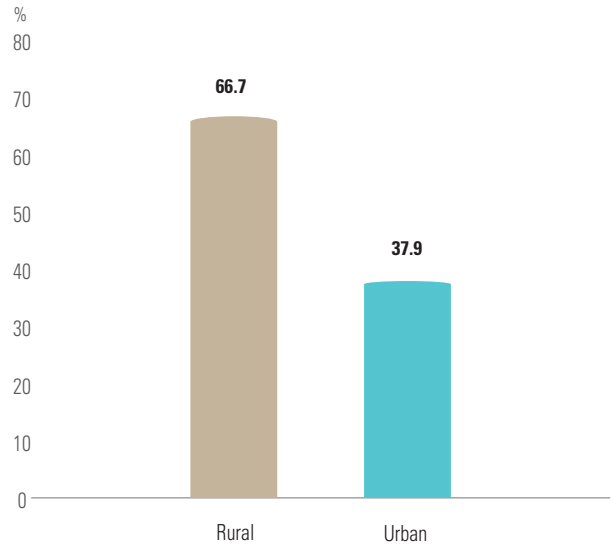
A significant disparity between urban and rural areas.

The results of the analysis show that sectoral and multidimensional deprivation rates are significantly higher in rural areas. Figure 4 presents a higher percentage of multidimensionally poor children living in rural areas (66.7%) than in urban areas (37.9%).
While disadvantaged children in urban areas are deprived on average of 48% of the total number of the analysed dimensions, poor children in rural areas are, on average, deprived of 53.1% of the total number of dimensions. In other words, the intensity of deprivation is even greater for poor children in rural areas.
The poverty index also confirms this observation with an index of 0.18 for urban areas against 0.36 for rural areas.[6]

Large provincial differences.

Figure 5 displays the multidimensional deprivation rates of children by province. On the map, darker colors indicate higher percentages of deprived children.
Compared to other provinces, Bujumbura Mairie is better off, with the lowest non-monetary poverty rate (H) of 38.1% and with an average intensity of deprivation of 44% (A).
On the other hand, the province of Muyinga presents the highest proportion of deprived children (82.1%) and the highest average intensity of deprivation (58.3%, A).

Figure 4: Multidimensional deprivation headcount ratio (K=3) by area of residence, children aged 0-17 years



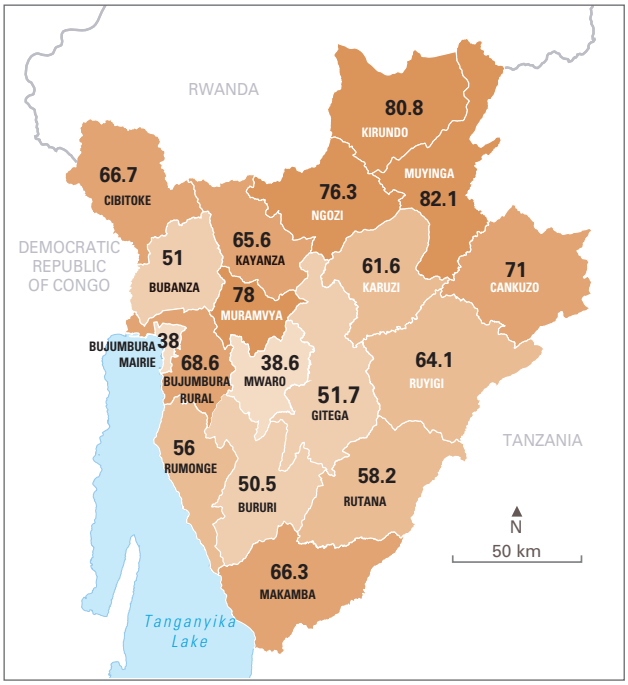
Recommandations

The results of the MODA analysis in Burundi based on the EICVMB 2019-20 database show high deprivation rates in several areas of child well-being as well as an overlap between the selected dimensions.

It is therefore necessary to address deprivations simultaneously and to tackle the underlying causes that generate them:

1. As the majority of children in Burundi experience multiple deprivations, it is important to adopt a long-term holistic approach that addresses all major deprivations along the life cycle, to help inform, design and implement multi-sectoral policies that significantly and effectively reduce children's vulnerabilities while maximizing returns in the early years.

Figure 5: Multidimensional deprivation headcount ratio (H) (%) (K=3) by province, children aged 0-17 years



6. The intensity-adjusted deprivation rate (Mo) is an index that reflects the incidence as well as the intensity of multidimensional deprivation. This is an index where the value 0 represents low deprivation and the value 1 represents the highest deprivation.

Such integrated interventions will lead to a considerable decrease in the severity or depth of poverty and are also more effective.

a. Integrate into the National Integrated Food and Nutrition Program (PRONIANUT) components that

- promote adequate and safe sanitation practices within communities in order to tackle deprivations in the nutrition and sanitation dimensions which are highest for all age groups, and which overlap most often
- contribute to improving the reduction and prevention of malnutrition in children.

b. Incorporate into the support measures of the cash for jobs program modules that strengthen the economic inclusion of beneficiaries and raise their awareness of good practices in food, sanitation and adequate hygiene, child protection, and education, including preschool.

c. Embed and integrate the MODA results in the review of the National Development Plan, the development of public policies, strategies, programs including municipal development plans.

2. Implement interventions that focus on the dimensions contributing the most to multidimensional child poverty. While it is essential to design policies and programs to reduce vulnerabilities in all dimensions of child well-being, it is recommended in the short term that interventions focus on dimensions with higher deprivation rates. In Burundi, the Nutrition and Sanitation dimensions present the highest percentages of deprived children among all age groups.

a. Promote healthy and diversified eating habits among parents and communities, particularly among vulnerable populations. This can be embedded and monitored within the framework of the school.

b. Raise awareness of increased health risks (e.g. diarrhea) when using shared toilets.

3. Particular attention should be given to the most vulnerable children. The study highlights that children with certain geographical and socio-demographic characteristics are more likely to have a higher incidence of multidimensional poverty than other children. The children with the highest multidimensional deprivation rates are those who live in rural areas, those who live in households where the head has a lower education levels and those who live in labour-constrained households

a. Implement programs focusing on the most vulnerable populations, in particular the provinces with the highest levels of multidimensional poverty, namely Muyinga, Kirundo, Muramvya and Ngozi.

b. Promote access to basic social services and strengthen the capacities of adolescents to become productive members of society by linking education, vocational training, and entrepreneurship.

4. Improve the level of investment in social protection and other basic social services to address the multidimensional deprivations experienced by children.

a. a. Increase the share of the state budget allocated to the social sectors and maintain it above the international standards to which the country has agreed (in particular 15% for health in accordance with the Abuja declaration and 20% for education).

b. Increase the level of investment in sanitation infrastructure and establish mechanisms to facilitate access for the most vulnerable households, with the support of community involvement.

c. Explore the mobilization of innovative financing including, the private sector, in the financing of social protection and basic social services.

5. In order to enable the development, monitoring and evaluation of policies, strategies, programs and budgets developed to tackle child poverty, it is desirable to reproduce this analysis on a regular basis to monitor the country's progress on multidimensional and monetary child poverty.

1 Introduction

1. Context

Burundi is an East African country, bordered in the north by Rwanda, in the south and east by Tanzania and in the west by the Democratic Republic of Congo. Its area is 27,834 km², including 25,200 km² of land surfaces and around 2,000 km² of territorial waters of Lake Tanganyika. With a population of 12,309,600, the country is the second most densely populated country in Africa with a density of over 442 inhabitants/km².

The EICVMB 2019-2020 survey shows that more than half of Burundi's population (51.4%) live below the monetary poverty line. In terms of non-monetary poverty, the results reveal that 53.1% of the population are multidimensionally poor. Based on the area of residence, the proportion of poor households is much higher in rural areas (56.6%) than in urban areas (22.5%). In addition, Burundi has one of the highest fertility rates in the world. In 2020, the total fertility rate was 5,237 births per woman.[7]

According to the EICVMB 2019-2020, the gross enrolment rates for primary and secondary education are respectively 86.9% and 22.2%. When disaggregating the results by area of residence, the analysis shows that the gross enrolment rate in urban areas reaches 103.7% compared to 85.7% in rural areas for the basic cycle. According to the sex of the child, the gross enrolment rate in primary education is 89.1% for girls compared to 84.8% for boys.
According to UNICEF (2021), 89.6% of children face a high prevalence of various forms of violence while only 62.7% have a birth certificate, and 30.60% of children are engaged in labor.
The 2022-2030 Education Sector Plan identifies the main challenges of the Burundian education system: an unfavorable macroeconomic context and a dynamic demography, a high percentage of primary school entrants who exceed the legal age of entry, the persistence of a high number of children outside the education system, high levels of repetition, insufficient learning time, significant geographic disparities, vulnerabilities, and risks that hamper schooling.

Burundi has put in place the Education Sector Plan2022-2030, the National Child Protection Policy 2020-2024 and its Action Plan, the Social Protection Code, the National Social Protection Policy and the strategy for its implementation, the National Gender Policy 2012-2025, the National Employment Policy, etc. The 2018 Constitution and other international legal instruments that Burundi has ratified pose the principle of equality and non-discrimination in rights and dignity for ALL Burundians. Nevertheless, Burundian women remain excluded from access to land and are victims of customary law that does not recognize equal treatment between men and women.

The SMART 2022 report reveals that the only 14.8% of women in Burundi consumes food with adequate dietary diversity at national level. Underweight affects 27,6% of children under the age of five, of which 7.8% suffer from a severe form of underweight. The prevalence of stunting stands at 55.8% (above the alert threshold of 30% set by the WHO). The share of global acute malnutrition (GAM) is 4.8% (below the WHO threshold of 5%). Of children aged 0 to 59 months, boys show higher prevalence rates than girls for the three nutritional indicators mentioned (underweight, stunting and acute global malnutrition).
Burundi has adopted, in collaboration with its partners, a joint United Nations agenda to strengthen food security and adequacy (2019-2023), the Multisectoral Strategic Plan for Food Security and Nutrition 2nd Generation 2019-2023 (PSMASAN II), the National Health Policy 2016-2025, and the National Health Development Plan III 2019-2023.

Burundi is a water-rich country having more than 30,000 water sources. 80% of households have access to an improved water source (UNICEF, 2021). The SMART 2022 report reveals that 58% of Burundians have access to a protected water source within 30 minutes of their home. The proportion of households using shared improved latrines is 28.2% while the proportion of households having basic hand washing services (a handwashing place with water and soap) is 8.6% nationally. Burundi has implemented the National Sanitation Plan and its 2025 operational strategy, the National Water Policy and the 2011-2020 National Water Strategy.
The adopted policies and strategies are consistent with the Burundi National Development Plan 2018-2027, the vision of Burundi 2025, the international declarations and acts that Burundi has ratified (SDGs, Africa Agenda 2063, Conventions on the Rights of the Child, etc.).

7. World Bank. (2022). Fertility rate, total (births per woman) – Burundi. Databank: https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=BI.

The Integrated Survey on the Living Conditions of Households in Burundi (EICVMB 2019-20) profiles and determines poverty in Burundi. It is a tool available to policy makers and development partners to plan their interventions in the country. This survey coincides with the Third Generation Community Development Plans (after the transfer of certain responsibilities from the State to the communes), the evaluation of the United Nations Development Assistance Framework in Burundi (UNDAF 2019-2023) and the development of the new Framework Plan of Cooperation for Sustainable Development between the Government of Burundi and the United Nations System (UNSDCF).

The EICVMB 2019-2020 survey reveals a persistence of poverty in Burundi. This rate is unevenly distributed across the country. It becomes imperative to break the intergenerational transmission of poverty. An in-depth understanding of the main causes and dynamics of child poverty is therefore essential to inform policy-makers in decision-making and policy-making, appropriate strategies and programs to ensure a good childhood and a better future.

2. Objectives of the study

This study of child poverty in Burundi aims to inform the Government and all humanitarian and development actors on the extent and dynamics of deprivations that affect children and their families, in order to develop more appropriate and effective policies, programs, strategies and budgets to improve the situation of affected children. It will also inform the decision-making process in the review of Burundi's National Development Plan (NDP) 2018-2027, among others, especially through the identification of regions with high incidence of monetary and multidimensional child poverty.

Objective 1:
Eliminate poverty in all its forms everywhere

Objective 1.1: By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.

Objective 1.2: By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

Finally, the MODA analysis can help track the country's progress towards achieving the SDG 1 target. A more in-depth analysis of the SDG 1 figures has been detailed in a separate note on child poverty complementing this document.

This report provides a detailed analysis of child deprivation in terms of nutrition, child protection, access to health and education services, clean water, sanitation, adequate housing, and access to information. All these dimensions are essential to the child's survival and development.
The following chapter presents the methodology, data, selected parameters, and limitations of the study.
Then, the results on the poverty situation (monetary and multidimensional) for all children are presented in Chapter 3.
Chapter 4 separately presents the main results of the single deprivation analysis, multidimensional analysis and overlapping deprivation analysis for different age groups 0-2 years, 3-7 years, 8-13 years, and 14-17 years.
Chapter 5 analyses the overlap between monetary and multidimensional poverty and Chapter 6 summarizes the main findings of the report and provides policy recommendations

2 Methodology

1. MODA methodology

MODA is a tool developed by UNICEF Office of Research in Florence and is part of efforts to generate quality data on poverty and disparities among children. MODA builds on previous studies and contributions, such as the 2007 UNICEF's Global Study[8] on Child Poverty and Disparities using an approach developed by researchers at the University of Bristol[9], the Multidimensional Poverty Index developed by the Oxford Poverty and Human Development Initiative (OPHI)[10], as well as other research in the field of multidimensional poverty.

Unlike these approaches, MODA focuses on child poverty using the child as a unit of analysis and makes the following contributions to the multidimensional poverty debate:

- MODA uses a holistic child-centered.

The choice of dimensions and indicators is based on their relevance to children's well-being (basic needs; fundamental rights of children). The multiple aspects of children's lives are simultaneously placed at the center of the analysis and the child is considered in its entirety.

- MODA adopts a life-cycle approach, recognizing that children's needs are not homogeneous during childhood. This approach reflects the differences in needs for each phase of childhood (such as early childhood, childhood, and adolescence).

- MODA allows to create profiles of deprived children. It helps to identify particularly disadvantaged or vulnerable groups and to determine their social and geographical characteristics (See Annex A.3 for the list of variables).

- MODA focuses on the context of each country, developing national adaptations of the approach with specific analysis parameters (National-MODA or N-MODA[11]).

- MODA is a methodology that measures and analyses the incidence, intensity and severity[12] of multidimensional poverty based on geographic location, and characteristics of children, households to which they belong and their parents. The analysis consists, on one hand, of a sectoral analysis, and on the other hand of a multidimensional analysis.

8. Voir UNICEF (2007) Étude mondiale sur la pauvreté et les disparités chez les enfants 2007-2008 https://www.unicef.org/socialpolicy/files/GlobalStudyGuide_French.doc
9. Voir Gordon, D., Nandy, S., Pantazis, C., Pemberton, S., Townsend, P. (2003), The Distribution of Child Poverty in the Developing World, University of Bristol
10. Voir Alkire, S., Foster, J. (2011). « Understandings and Misunderstandings of Multidimensional Poverty Measurement », Document de travail de l'OPHI N° 43, University of Oxford, and Alkire, S., Santos, M. E. (2010), « Acute Multidimensional Poverty: A New Index for Developing Countries », Document de travail de l'OPHI N° 38, University of Oxford.
11. The N-MODA results do not allow comparison with other countries. Nevertheless, they can reveal more detailed and richer information about the extent and characteristics of child deprivation and about the profiles of children suffering from deprivation in a given country. N-MODA also allows comparison over time at country level.
12. See more details about these poverty indices in Annex 2.

✻ *Sectoral analysis*

Deprivation by indicator and by dimension

Deprivation rates by each indicator and dimension are calculated for each age group. The deprivation rate for each indicator represents the percentage of deprived children in this indicator. Similarly, the deprivation rate by dimension estimates the share of deprived children in this dimension.[13] Indicators are aggregated into dimensions of well-being based on the union approach. This approach implies that every child deprived in at least one indicator of a given dimension will be considered deprived in the said dimension.

The likelihood of a child experiencing deprivation in a dimension thus increases with each additional indicator included under that dimension. Indeed, the indicators cover distinct aspects of deprivation in each dimension and are therefore not weighted. In other words, indicators of a given dimension are complements, not substitutes, to reflect the distinct aspects of deprivation for each dimension.[14]

However, the number of indicators per dimension is generally limited to 2 or 3.[15]

✻ *Multidimensional analysis*

Number of simultaneous deprivations

The number of deprivations experienced by each child provides important information about the intensity of deprivation and thus the multidimensional poverty experienced in each age group. This type of analysis makes it possible to produce a distribution of the number of deprivations suffered by children of different age groups and according to other characteristics.

Identification of multidimensionally deprived children

Several index are used in the analysis of multidimensional deprivation. The multidimensional deprivation headcount ratio (H) (%) is the proportion of children who are deprived in a given number of dimensions according to threshold K (deprivation in at least 2 dimensions, 3 dimensions, N dimensions). The average intensity of multidimensional deprivation (A), allows to estimate the severity of deprivation suffered by deprived children in multiple dimensions.

The adjusted multidimensional deprivation headcount ratio (Mo) is an index that reflects both the impact and the intensity of multidimensional deprivation. Although it cannot be interpreted alone, this index allows a comparison of the overall situation of deprivation of children of different sub-groups of the population.

Thus, for two subgroups of children with equal multidimensional deprivation rates, Mo is higher for children who are suffering more deprivations on average. As in the sectoral analysis, this method also profiles the most vulnerable children.

✻ *Overlap analysis*

The overlap analysis allows to better assess the extent and nature of simultaneous deprivation affecting children.

Identifying the deprivations to which children are subject simultaneously complements the valuable information obtained from counting deprivations per child. Indeed, this type of analysis makes it possible to tailor policies and interventions to children in situations of multidimensional deprivation.

Children for whom deprivations can be reduced by a sectoral response and those for whom multi-sectoral responses are needed can thus be identified.

2. Database

The database used for the analysis of monetary poverty and multidimensional deprivation is the Integrated Household Living Conditions Survey in Burundi (EICVMB) 2019-2020 with a sample size of 8,490 households.

The data cover various aspects of child well-being, including nutrition, child protection, health, education, water, sanitation, housing and access to information. In addition, estimates are representative at the urban, rural and provincial levels.[16]

13. Deprivation rates by indicator are reported only for children affected by deprivation. For example, if the age of entry into primary education is 6 years in a country, only children aged 6 and over will be considered in the calculation of deprivation for this indicator thus excluding younger children.
14. Each aspect is equally important. For example, ensuring access to water is not enough if the water source used for drinking is not safe to drink. So how do we assign different weights to each of these crucial aspects of water deprivation?
15. De Neubourg, C., M. de Milliano, I. Plavgo, (2013), « Lost in Dimensions », Working paper, UNICEF Office of Research, Florence..
16. In 2017, as similar study was carried out. The results of this analysis are presented in Annex B.1

3. Selection of parameters

The parameters of the analysis on multidimensional child poverty in Burundi (indicators, dimensions, age groups, deprivation thresholds, among others) were discussed and agreed during a national workshop held in Ngozi between 10 and 12 May 2022.

A cross-sectional working group on Child Poverty was set up to contribute to the contextualized selection of the analysis parameters.

A selective number of participants of the working group on child poverty was trained on the concepts of child poverty and the MODA approach to poverty analysis using STATA software.

Table 1 presents the dimensions and indicators used for the analysis of multidimensional child poverty in Burundi by age group (See Annex A.1 for a detailed list of parameters and thresholds).

Table 1. Selection of dimensions et indicators

DIMENSIONS		AGE GROUP			
Indicators		0-2 years	3-7 years	8-13 years	14-17 years
Nutrition	Household consumption	✔	✔	✔	✔
	Food insecurit	✔	✔	✔	✔
Health	Skilled birth attendance	✔	✔ (3-4 years)		
	Use of mosquito net (MILDA)	✔	✔	✔	✔
Child protection	Birth certificate	✔	✔	✔	✔
	Child labour (paid and unpaid)		✔ (5-7 years)	✔	✔
Education	School attendance		✔ (6-7 years)	✔	✔
	Literacy			✔	✔
	Primary school attainment				✔
Water	Drinking water source	✔	✔	✔	✔
	Distance to water source (in minutes)	✔	✔	✔	✔
Sanitation	Unimproved toilet	✔	✔	✔	✔
	Sharing toilets	✔	✔	✔	✔
Housing	Overcrowding	✔	✔	✔	✔
	Materials of the roof	✔	✔	✔	✔
Information	Access to information and communication devices	✔	✔	✔	✔

4. Limitations of the analysis

Other indicators of child well-being have been proposed as relevant for identifying deprived children in Burundi.
Despite their relevance, the lack of data or incomplete data made it impossible to include them to measure the prevalence and severity of child deprivation. However, these limitations did not prevent a complete and disaggregated analysis of the situation of children in Burundi.

THE MAIN LIMITATIONS

The main limitations were associated with :

- data availability for only a subsample of children (sometimes from sample collection design),
- lack of variance, or
- unavailability of relevant variables.

The list below shows several indicators of child well-being that could not be included as indicator variables:.

La liste ci-dessous indique plusieurs indicateurs du bien-être de l'enfant qui n'ont pas pu être inclus en tant que variables indicatrices:

Lack of variance:

The MODA methodology aims to identify the most vulnerable children. Therefore, indicators showing that almost all children are deprived or non-deprived are removed.

Furthermore, it is difficult to target beneficiaries in policy design if almost all children are deprived. It concerns the following indicators:

- Health insurance.
- Availability of handwashing place with water and soap.
- Sewage disposal.
- Access to electricity.
- Main materials of the walls and floor.

Unavailability of relevant variables:

It is important to use a single database with information available for all children. This analysis is based on the EICVMB 2019-20 database.

The following indicators are identified as important in the context of Burundi but could not be included due to unavailability of data:

- Infant and Young Child Feeding (IYCF - ANJE).
- Exclusive breastfeeding.
- Nutrition of pregnant women (with the child as unit of analysis).
- Type of cooking fuel – no information available on cooking location in the EICVMB.
- Pre- and post-natal consultation.
- Water conservation.
- Violent discipline (physical/psychological).

The importance of variance in an overlap analysis[17]

Variance:

- analyzing overlapping deprivations requires variance;
- for every indicator there must be a number of children who are deprived and non-deprived according to that indicator.
- Indicators for which in a particular country almost all or the vast majority of the children are deprived are potentially very important but not very useful in an overlap analysis.
- Lacking a birth certificate, for instance, is potentially important as an indicator as being registered is a child's right with many consequences for access to services; it may, however, not be very useful as a deprivation indicator as there may be a lack of variance in this indicator (i.e., most children registered or not registered, depending on the efficiency of public administration).

17. de Neubourg, C., J. Chai, M. de Milliano, I. Plavgo, et Z. Wei (2012), « Directives étape par étape pour l'analyse du chevauchement des privations multiples (MODA) », Document de travail n° 2012-10, Bureau de recherche de l'UNICEF, Florence. (Page 18)

Table 2 shows the deprivation rates for the indicators that were available in the EICVMB 2019-20 but were not used for the analysis of multidimensional child deprivation in Burundi.

An additional limitation of the study relates to a gender analysis. The indicators that have been chosen are observed at the household level which prevents the inclusion of this analysis. Gender differences need to be analyzed at the individual level and qualitatively for more detailed analysis.

Finally, it should be noted that the definition of the unimproved toilet indicator is modified for the purpose of this study. According to EICVMB 2019-20, 72.7% of households in Burundi use a traditional toilet.
Additional questions were asked to these households regarding to basic details of the toilet structure, including roofing and wall materials.

To ensure the variance of the data, this analysis considered a child as deprived if he/she lives in a household that uses traditional toilets without slabs.
However, it is important to mention that among households that use traditional toilets, 26.1% have no roof, 78.8% have no doors and 97.0% have no window. This issue needs to be further explored in another sectoral analysis.

Table 2: Deprivation rate for indicators that were excluded from the N-MODA analysis in Burundi

INDICATOR	THRESHOLD	AGE	Percentage of deprived children
Health insurance	Child lives in a household without access to a handwashing place with water and soap.	0–17 years	82.9 %
Availability of handwashing place with water and soap	Child lives in a household without access to a handwashing place with water and soap.	0–17 years	89.8 %
Sewage disposal	Child lives in a household that uses an inadequate sewage disposal method. **Deprived:** disposed in own yard or on the road, disposed in river/ creek, disposed in the nature, other **Non-deprived:** disposed in sewage, disposed in septic tank.	0–17 years	92.1 %
Access to electricity	Child lives in a household that has no access to electricity.	0–17 years	92.1 %
Material of the walls	Child lives in a household with walls made of natural materials. **Deprived:** no walls, bamboo/ cane/palm/trunk, earth, bamboo with mud, stones with mud, non-covered adobe, plywood, cardboard, other **Non-deprived:** reused wood, cement, limestone/cement, bricks, cement blocks, covered adobe, wood planks.	0–17 years	45.3 %
Material of the floor	Child lives in a household with a floor made of natural materials. **Deprived:** earth/dung, wood planks, palm/bamboo, other **Non-deprived:** elaborated material, parquet or polished wood, vinyl or asphalt strips, ceramic tiles, cement, carpet.	0–17 years	83.7 %

Source : Author's calculations based on the EICVMB 2019-20

3 Poverty among children in Burundi

The main findings of the study on monetary and multidimensional poverty for the total population of children aged 0–17 years in Burundi are summarized in this section.

Characteristics of children previously identified as poor were examined to establish poverty profiles.

The analysis presented here answers the following questions:

- What is the incidence of child poverty (monetary and multidimensional) in Burundi?
- Do the two approaches to poverty identify the same children as poor?
- What are the profiles of these multidimensionally poor children (monetary and multidimensional)?

1. Monetary poverty

In Burundi, 55.3% of children under the age of 18 live in households considered to be monetary poor (see Figure 6). Subsequently, 44.8% of children (0-17 years) live in non-monetary poor households, with at least FBU 1,580 per day per adult equivalent. Figure 6 also disaggregates the poverty rates by area of residence and provinces. There is a large discrepancy between urban (16.2%) and rural (59.2%) poverty rates, with a difference of 43 percentage points.

In addition, the results reveal significant disparities between provinces. In particular, the province Bujumbura Mairie has an exceptionally low poverty rate of 7.8% while Bujumbura presents a rate of 51.4%. This indicates higher poverty levels in peri-urban areas. Makamba (46.3%) and Rumonge (46.4%) show the second and third lowest rates. On the other hand, Karusi, Rutana and Ruyigi are the provinces with the highest rates of monetary poverty (75.6%, 75.3% and 74.8% respectively). Monetary poverty ranges from 46.8% to 63.7%. in other provinces

The poverty analysis also looked at income poverty rates by predetermined age groups. Figure 7 shows the proportion of monetary poor children for the youngest age group, from 0 to 2 years (46.1%), followed by children aged 3 to 7 years (54.3%), children aged 8 to 13 years (59.5%) and finally youth aged 14 to 17 years (58.9%).

The poverty rates increase with the age of the child, except for the oldest age group. The poverty rate for children ages 14 to 17 is higher than for children ages 3 to 7, although a higher percentage of children ages 8 to 13 experience monetary poverty.

Figure 7: Monetary poverty rate by age group, in %

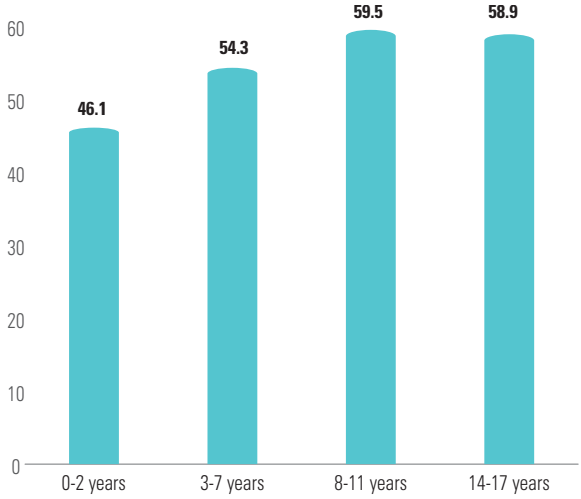
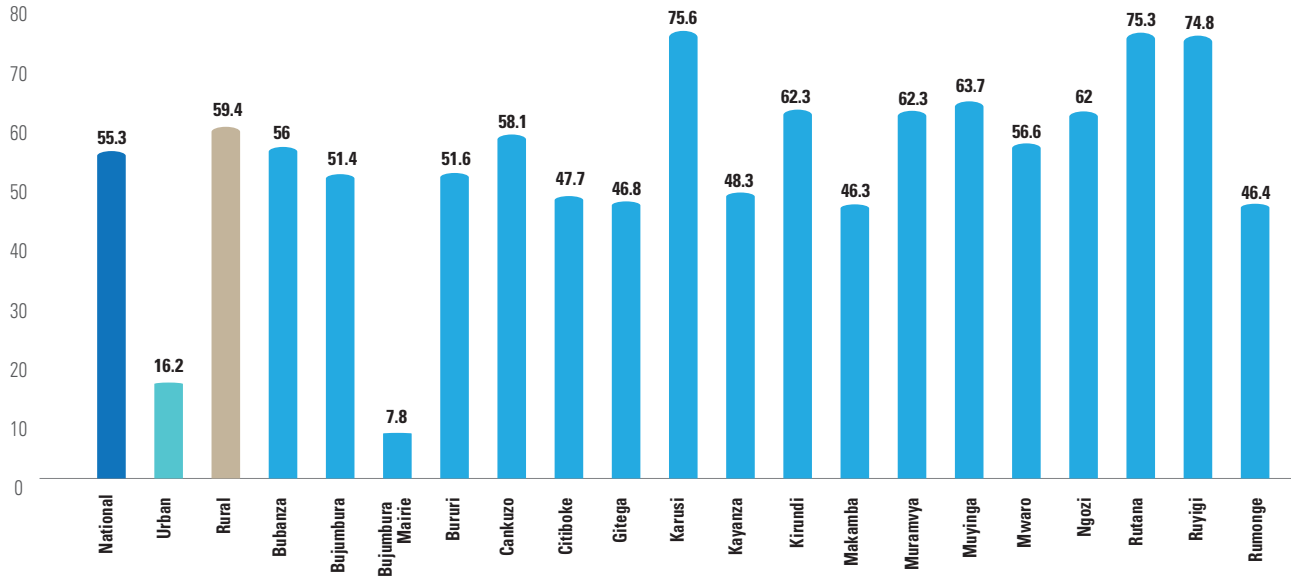


Figure 6: Monetary poverty among children (0-17 years) at the national level, by area of residence and provinces, in %



2. Multidimensional poverty of children in Burundi

With regards to multidimensional deprivation, Figure 8 displays the number of children aged 0 to 17 years facing simultaneous deprivation in multiple dimensions.
Referring to the agreed dimensions, almost all children in Burundi (95.3%) are deprived in at least one dimension out of eight with only 4.7% suffering from no deprivation. A large majority of children (63.2%) are deprived in 2, 3 or 4 dimensions simultaneously while 8.2% of children are deprived in 6 or more dimensions at the same time.

The distribution is skewed the left, indicating that most Burundian children experience less deprivation simultaneously. Indeed, almost 60% of children (0-17 years) suffer from 3 deprivations or less.

To define multidimensional deprivation, it is necessary to determine a threshold identifying multidimensionally poor children. For Burundi it was decided to adopt a threshold of k=3, that is a child with at least 3 deprivations is considered as multidimensionally deprived. According to this threshold, 64% of all Burundian children are multidimensionally poor (Figure 9).

Table 3 highlights the incidence and intensity of multidimensional deprivation at the national and by area of residence (urban and rural). The multidimensional deprivation headcount (H) (%) indicates a higher prevalence of multidimensional poverty in rural areas (66.7%) compared to urban areas (37.9%). This is consistent with the results for monetary poverty.

Figure 8: Deprivation distribution at the national level, 0-17 years

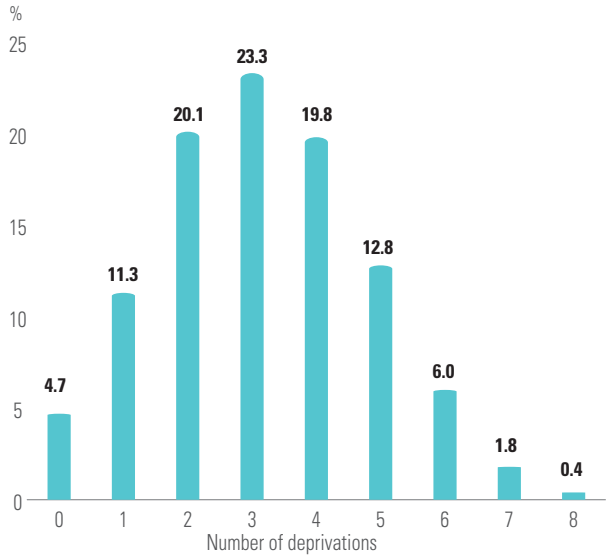
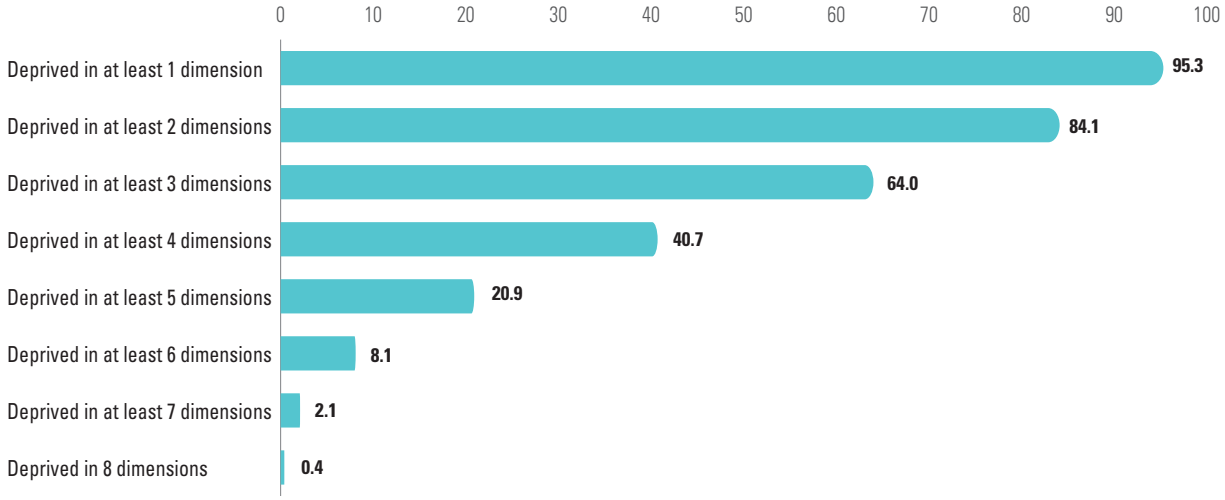


Table 3: Multidimensional deprivation indices at the national level and by area of residence using a threshold of K=3, 0–17 years

	Multi dimensional deprivation headcount (H), %	Average intensity among the multi dimensionally poor (A); %	Average no. of deprivations among the multi dimensionally poor (A)	Adjusted multi dimensional deprivation headcount (Mo)
National	64.0	52.9	4.1	0.34
Urban	37.9	48.0	3.8	0.18
Rural	66.7	53.1	4.2	0.36

Figure 9: Multidimensional deprivation headcount ratio (H) (%) at the national level, 0-17 years



In addition, Table 3 shows the average number of deprivations experienced by multidimensionally deprived children in absolute and percentage terms (A). At the national level, multidimensionally deprived children suffer, on average, from 52.9% of the total number of deprivations or 4.1 out of 8 dimensions. Rural children present a slightly higher deprivation intensity than urban children.

These deprived children living in rural areas therefore experience more deprivations at the same time compared to deprived children living in urban areas. However, the difference is not significant. Although the prevalence of multidimensional deprivation is much higher in rural areas, the deprivation intensity does not necessarily show large discrepancies.

3. Profile of the multidimensionally poor children (0–17 years)

When disaggregating the multidimensional deprivation indices by various geographical and socioeconomic characteristics, important differences emerge.

In the previous section, it has already been identified that children living in rural areas present higher deprivation levels than those living in urban areas.

Similarly, **disparities can be observed between provinces** (Figure 10). In particular, Muyinga (82.1%), Kirundo (80.8%), Muramvya (78%) and Ngozi (76.3%) are the provinces with the highest proportion of multidimensionally poor children (dark color), while Bujumbura Mairie (33.1%), Mwaro (38.6%), Bururi (50.5%), Bubanza (51%) and Gitega (51.7%) present the lowest deprivation rates (light color).

In contrast to the results by area of residence, the trends in poverty rates by province are not similar between monetary poverty and multidimensional deprivation, except for Bujumbura Mairie.

Multidimensional deprivation rates by other characteristics are shown in Figure 11. For example, children living in large households, that is to say more than 7 mem-

Figure 10: Multidimensional deprivation headcount ratio (H) (%) by provinces

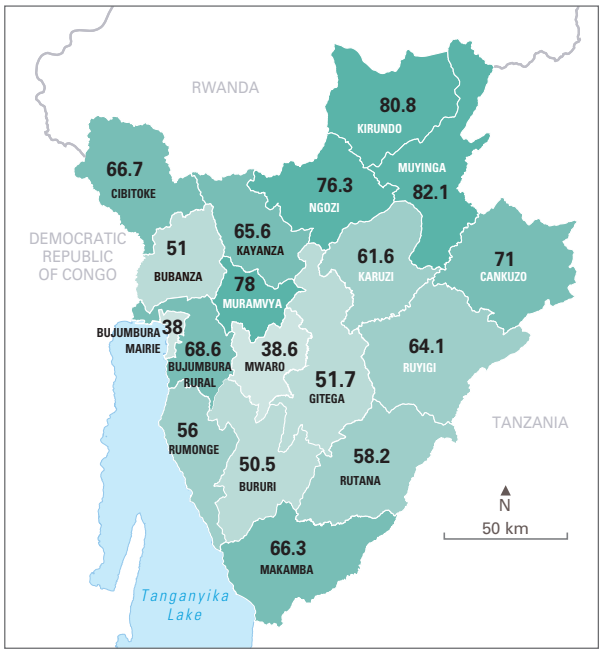
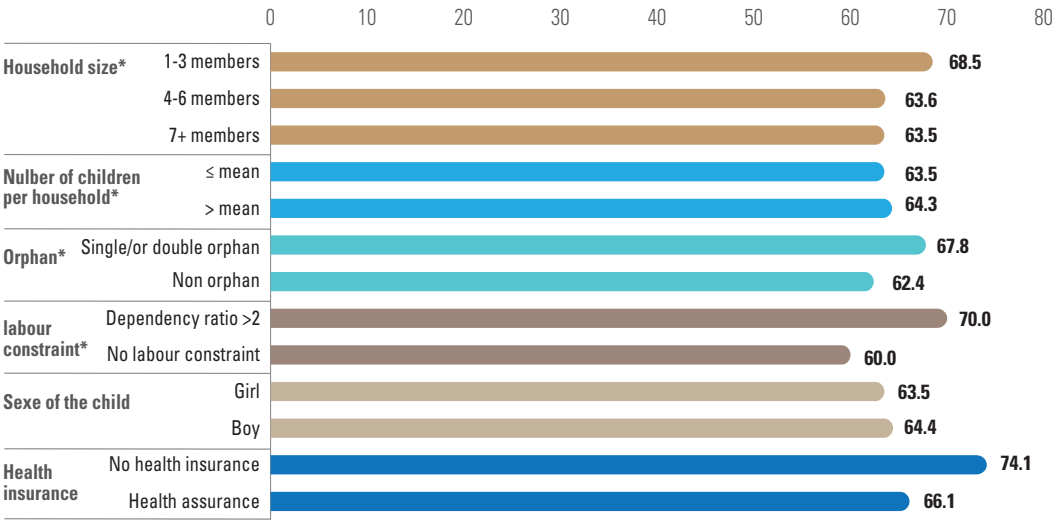


Figure 11: . Multidimensional deprivation headcount ratio (H) % by various characteristics



* p < 0,05 in Chi-squared test of independence

(The Chi-squared independence test is a statistical hypothesis used to determine whether two variables are likely to be correlated or not.)

bers, are not necessarily more vulnerable to multidimensional poverty. On the contrary, a larger proportion of children from households with fewer than four members are multidimensionally deprived (68.5%).
The deprivation rate for children living in households with four or more members is 63.5%-63.6%. There are also few differences between children living in households with more than the average number of children, compared to those living in households with fewer children than the average.
Greater disparities can be observed for orphans (67.8%) and children who do not have a health insurance (65.9%).

Due to the parameters of the analysis, the differences in gender are not significant, another analysis based on data at the individual level may inform better the discrepancies between girls and boys.

Results disaggregated by different profiling variables vary only slightly between age groups. In terms of household size, the proportion of deprived children living in households with 4-6 members is higher for the youngest age group (0-2 years) than for the other three age groups (3-17 years). In general, deprivation rates are higher for households with 1-3 members.

For each age group, the results are significant. Furthermore, the significance test proves that the number of children per household only affects the deprivation levels of the first (0-2 years) and oldest age groups (14-17 years). In addition, as shown in Figure 6, orphaned children present a higher vulnerability with regards to multidimensional poverty. Although, for children aged 0 to 2 years, it is impossible to draw conclusions because the results are not significant.

Labor constraint is a variable that indicates the number of people in a household who depend on members who are active in the labor market. This indicator divides the number of non-active persons by the number of active persons. This profile reveals significant differences of 10 percentage points, on average, for all children, to the detriment of labor constrained households.
The absence of a health insurance also increases the proportion of deprived children by 11 percentage points on average regardless of age, with the largest disparities observed for children in the third age group (8-13 years).
Finally, no differences can be observed for the profile variables if an indicator is based on household level data. This is the case for the dimensions Water, Sanitation, Housing, and Information.

Multidimensional deprivation, by age group

MODA takes a holistic approach to poverty and deprivation and allows analysis of multiple aspects of child well-being for different age groups.

Indeed, the used life cycle approach indicates that the definition of deprivation changes with the age of the child. A 5-month-old child will have to be breastfed while a 17-year-old child needs to go to school in order to be not deprived. Subsequently, the following analyses were conducted for each of the four age groups (0-2 years, 3-7 years, 8-13 years, and 14-17 years).

1. The sectoral analysis,
presents the proportion of children deprived in each indicator and dimension, to highlight the most pertinent areas of child deprivation.

2. The deprivation distribution,
analyses the distribution of the number of deprivations suffered simultaneously by children.

3. The multidimensional deprivation indices,
present the incidence and intensity of multidimensional deprivation.

4. The overlap analysis,
analyses in which combination(s) of dimensions children are deprived at the same time. This type of analysis assesses the relevance of multi-sectoral programmatic responses to child multidimensional poverty.

1. Deprivation by indicator and dimension

Children aged 0 to 2 years

The food insecurity indicator is showing the highest deprivation rate (65.2%) among Burundian children aged 0 to 2 years (Figure 12). T
he other indicator under the nutrition dimension concerns food diversity . This latter is one of the indicators with the lowest deprivation rate (10.0%). The Nutrition dimension therefore presents an indicator with the highest and one of the lowest deprivation rates.

Furthermore, 58.5% of children aged 0-2 years are deprived in the unimproved toilet indicator. Similarly, the Sanitation dimension to which this indicator belongs also contains another indicator with a relatively low deprivation rate. Indeed, 17.8% of children in this age group live in a household that shares toilets with other people.

Finally, 43.3% of children aged 0 to 2 years live in households without access to any communication or information devices. These devices can serve as an important source of information for parents on good nutrition, development, and well-being of young children.

Figure 13 shows deprivation rates for children aged 0 to 2 years by each dimension. Using the union approach to aggregate the indicators by dimension, a child is defined as deprived in a dimension if he/she suffers from deprivation in at least one of its indicators.
Sanitation and Nutrition dimensions present the highest proportions of deprivation for children at this age. More than six out of ten children are deprived in Nutrition (67.8%) and Sanitation (66.9%).
In addition, the Information and Water dimensions reveal deprivation rates of 43.3% and 40.2% respectively.
Finally, Health and Child protection indicate the lowest rates out of the seven dimensions.

Figure 13: Deprivation ratio (%) for each dimension, 0-2 years

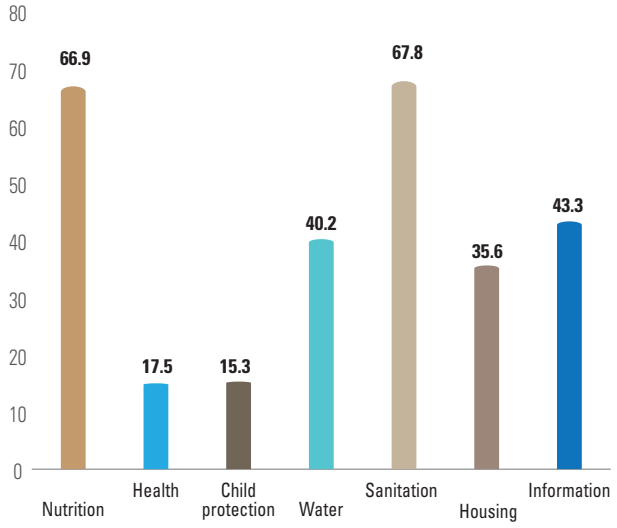
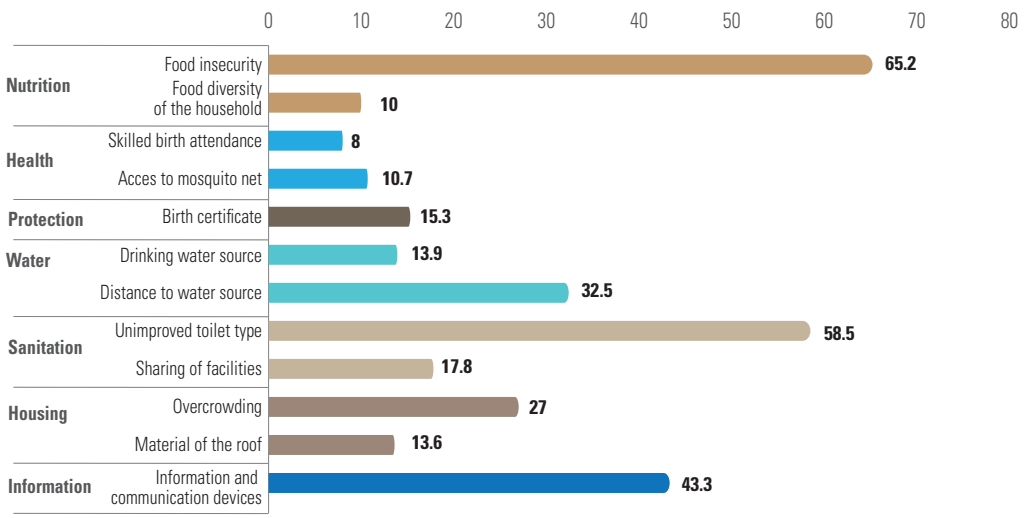


Figure 12: Deprivation ratio (%) for each indicator, 0-2 years



Children aged 3 to 7 years

Among Burundian children aged 3 to 7 years, food insecurity is also the indicator with the highest deprivation rate, 67.7% (Figure 14).

Like children in the previous age group (0-2 years), more than half of children this age live in households using a non-improved toilet (60.8%).

Furthermore, communication or information devices are not available for 43.7% of children, but this indicator no longer reflects the third highest deprivation rate. Indeed, 47,7% of children aged 6 to 7 years old[18], do not attend school. For children aged 5 years and older, there is another indicator on child labor with a deprivation rate of less than 1%.

Finally, the majority of child births are provided by qualified caregivers while only 10.1% of children in this age group do not have a diverse food consumption.

These results largely correspond to the results of the previous age group.

For the other dimensions, observations are similar. Figure 15 shows the highest deprivation rates for Nutrition (69.4%), followed by Sanitation (68.1%) and Education (47.7%). The Information dimension ranks fourth with a deprivation rate of 43.7%.

Only a quarter of children this age is deprived in the Health (16%) and Child Protection (16.6%) dimensions. Furthermore, 40.1% of children aged 3 to 7 are deprived in terms of water conditions, without nearby access to a drinking water supply point or an improved drinking water source, or both.

18. Primary school education starts at the age of 6 years.

Figure 15: Deprivation ratio (%) for each dimension, 3-7 years

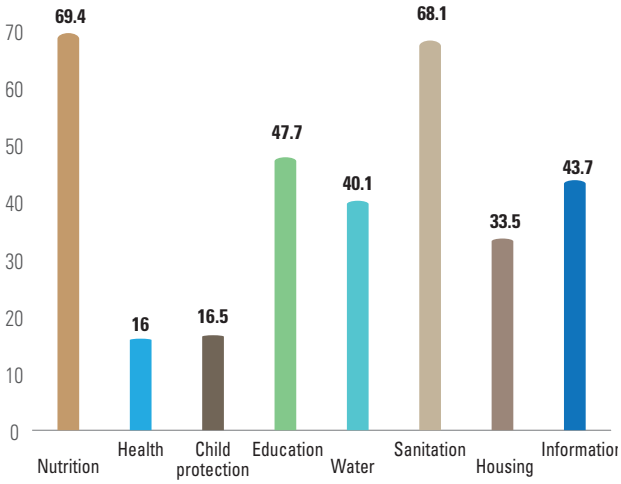
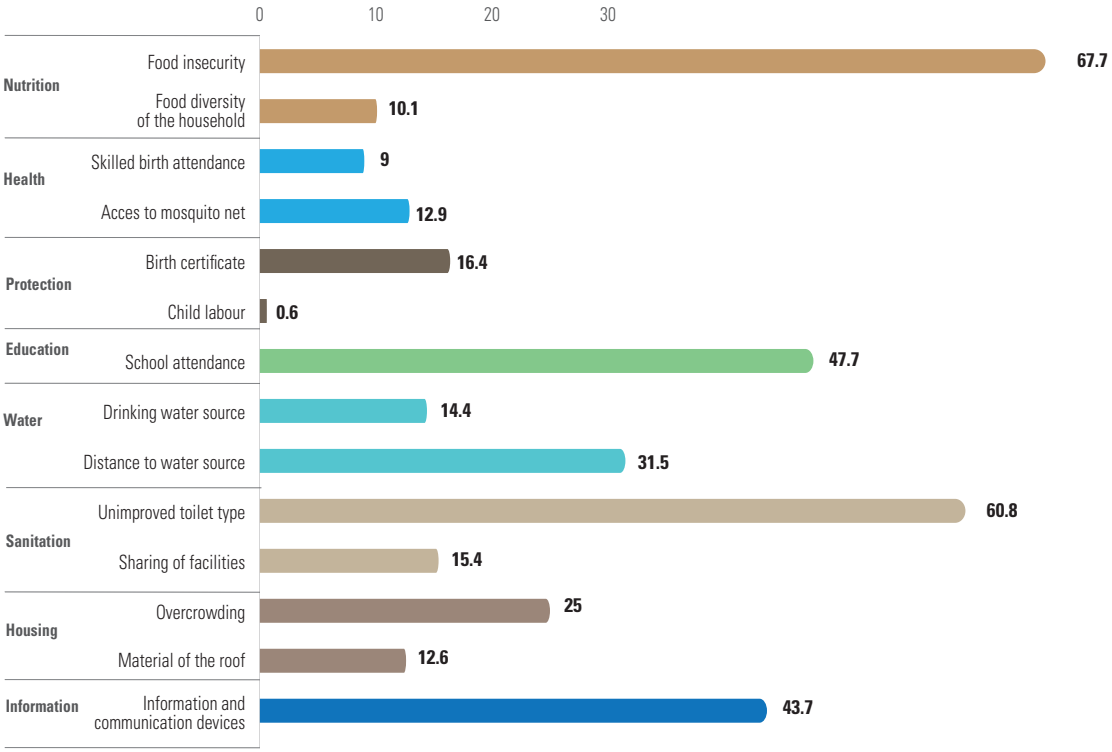


Figure 14: Taux de privation (%) pour chaque indicateur, 3-7 ans



Children aged 8 to 13 years

As for the previous age groups, food insecurity is the indicator showing the highest deprivation (67.7%) among Burundian children aged 8 to 13 years (Figure 16).
Moreover, a large proportion of children this age experience deprivation in the unimproved toilet indicator (60.5%) and live in households without access to communication or information devices (42%).
In contrast to children aged 6 to 7 years, the lack of school attendance is less prevalent in this age group. Approximately a quarter of children aged 8 to 13 years are not in school. 28.2% are unable to read nor write a short text in any of the following languages: French, Kirundi, Swahili, English.
In addition, the number of children without birth certificate is higher for children in this age group, compared to younger children, by 10 percentage points. Less than 5% of children are engaged in child labor (paid work) while 10.3% is deprived in food diversity.

For children aged 8 to 13 years, most of the deprivation rates by dimension are similar to the younger age groups. Figure 17 presents the highest deprivation rates for the Nutrition (69.4%) and Sanitation (66.5%) dimensions.

On the other hand, compared to children aged 3 to 7, almost twice the proportion of children this age (29%) are deprived in Child protection.
This is driven by the child labor indicator. In fact, for children aged 3 to 7, deprivation stands at 0.6% while for children aged 8 to 13, the deprivation reaches 4.7%, an increase of 4.1 percentage points.
For the birth certificate indicator, there is a 10 percentage point increase compared to the previous age group.

Figure 17: Deprivation ratio (%) for each dimension, 8-13 years

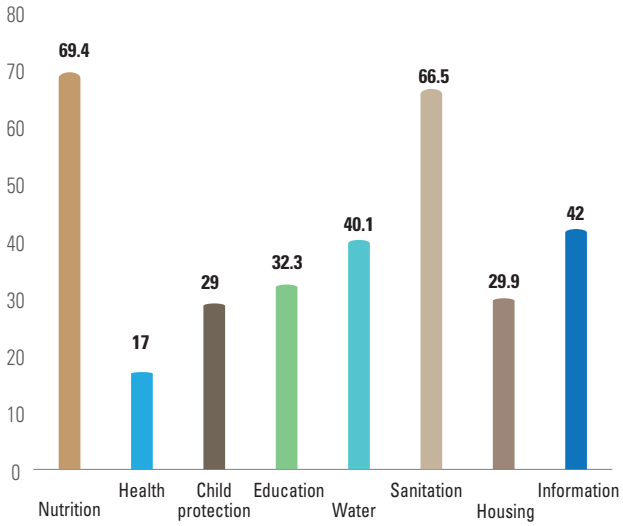
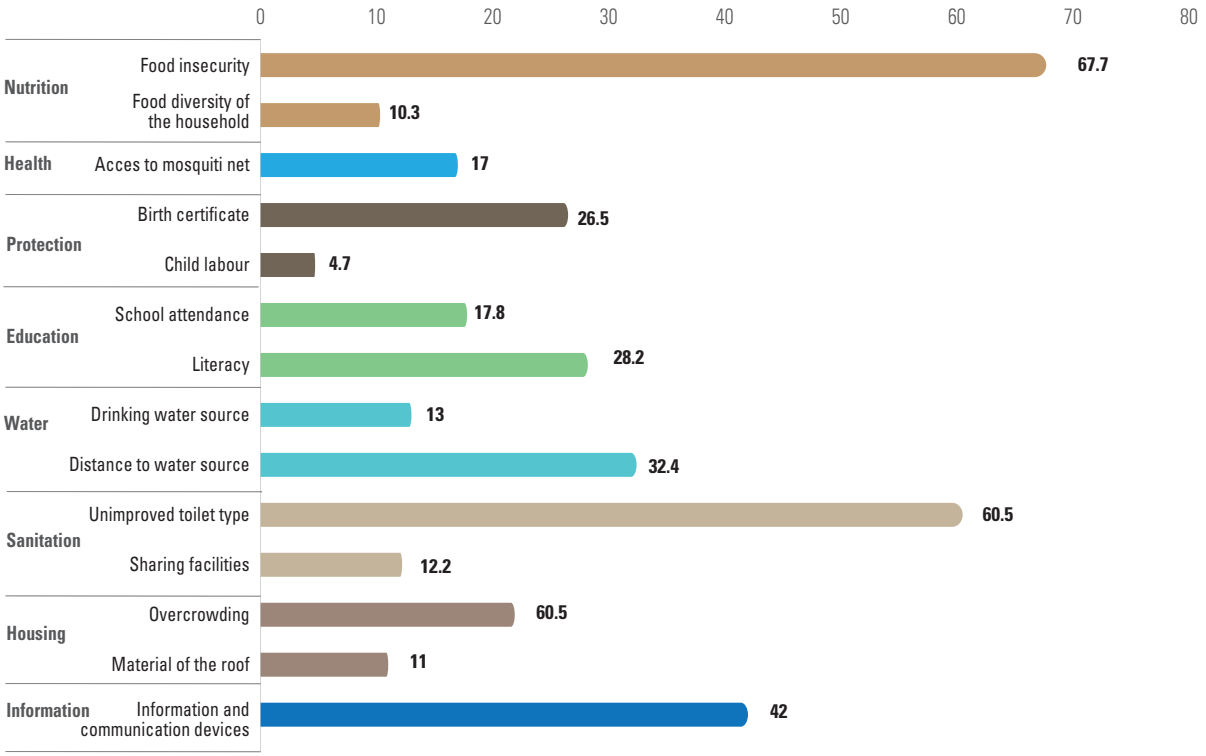


Figure 16: Deprivation ratio (%) for each indicator, 8-13 years



Children aged 14 to 17 years

Among Burundian children aged 14 to 17, food insecurity remains the indicator with the highest deprivation rate, 64.7% (Figure 18).
As for the previous age groups, a large percentage of children are deprived in access to adequate toilet facilities (59.4%). This is especially concerning for girls.
Moreover, 42.4% of children this age do not attend school and one in ten is illiterate. However, most children, 89.9%, have completed compulsory primary education.
Furthermore, Figure 18 shows a substantial increase in the child labor indicator, with 30.5% of children involved in paid work.

Deprivation in the second indicator under the child protection dimension also increased, compared to the youngest age groups: almost four in ten children (37.3%) in this age group have no birth certificate. This indicates an improvement in recent years. It will be important to continue current efforts to increase obtaining birth certificates, as this is necessary for access to health services, education etc.

As for younger age groups, the indicators 'material of the roof', 'food diversity' and 'drinking water source' do not present high levels of deprivations.

On the other hand, deprivation in overcrowding and sharing of toilet facilities is more prevalent among younger children than older children. The deprivation rate decreases from 27.0% to 18.2% for overcrowding, which is almost a 10 percentage points difference. In addition, 17.8% of children aged 0-2 years are deprived in overcrowding compared to 11.7% of children aged 14 to 17 years.

The deprivation rates by dimension are the highest for Nutrition (66.3%) and Sanitation, 65.3% (Figure 19).

Figure 19: Deprivation ratio (%) for each dimension, 14-17 years

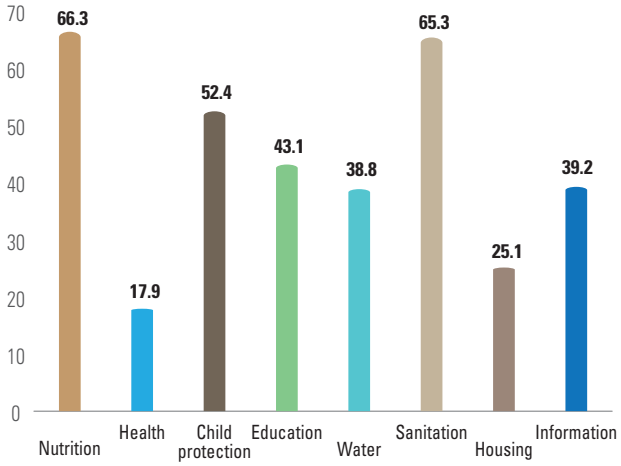
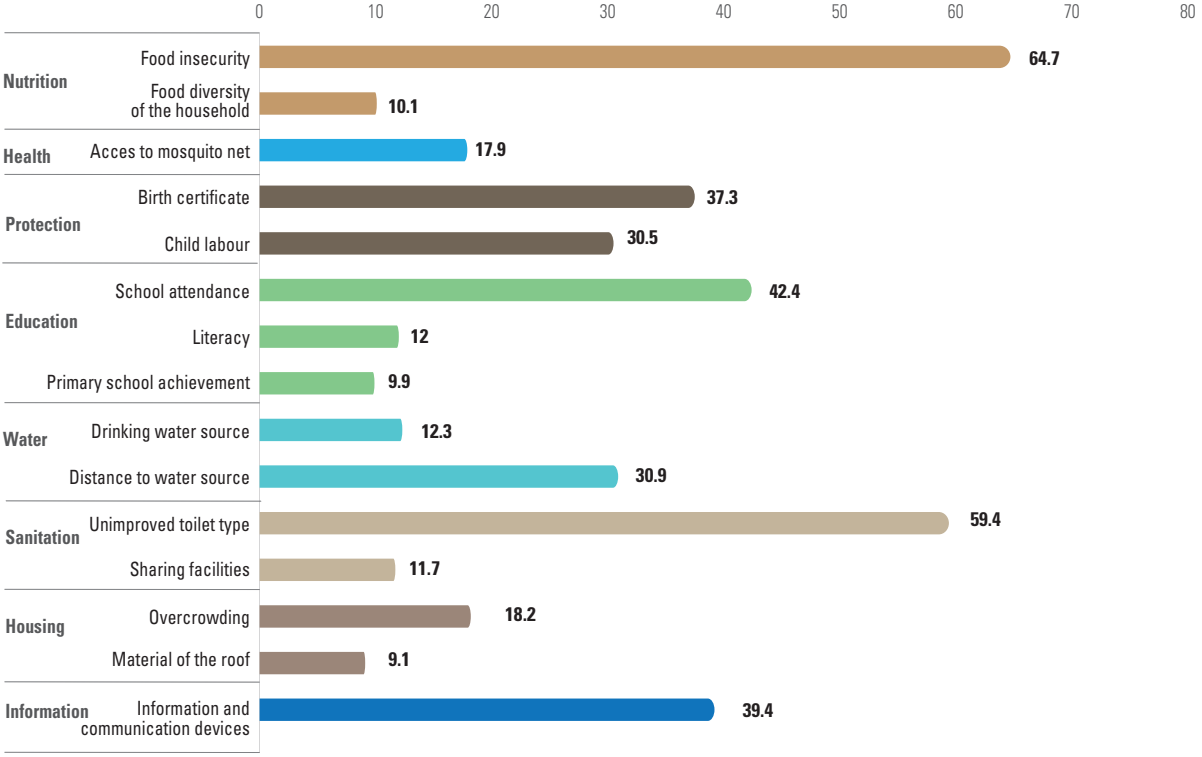


Figure 18: Deprivation ratio (%) for each indicator, 14-17 years



Furthermore, more than half of children (52.4%) face deprivation in Child protection. Deprivation in this dimension has increased significantly compared to younger age groups, mainly because of the child labor indicator.

Education indicates a deprivation rate of 43.1%, which is ten percentage points higher than for children aged 8 to 13 years. For this age group, completing secondary education is crucial to ensure transition to the labor market.

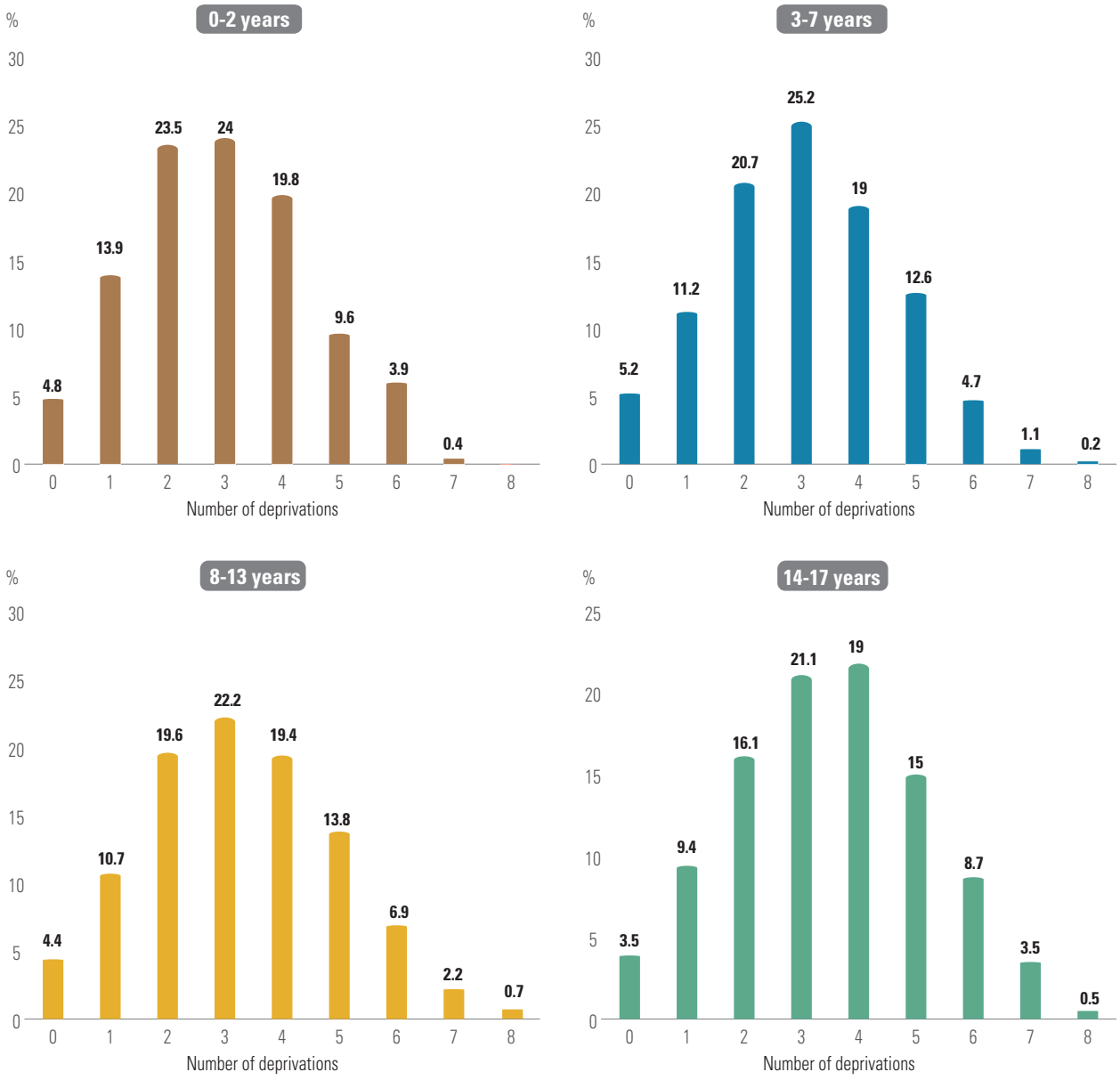
Just over a quarter of children aged 14 to 17 years are deprived in the Health dimension.

2. Simultaneous deprivations distribution (including several dimensions)

The multidimensional analysis shows the distribution of simultaneous deprivations experienced by each child.

Figure 20 displays the proportion of children deprived in exactly 0.1.2,… .X dimensions at the same time for each age group.
Among children aged 0 to 2 years, the majority face two or three deprivations simultaneously (23.5% and 24.0% respectively). In addition, approximately 4.8% of children do not suffer from any deprivation.
Similar observations are found for age groups 3 to 7 years and 8 to 13 years. However, the distribution of deprivation for children aged 14 to 17 years is more skewed to the right side of the figure, as most children are deprived in three or four dimensions at the same time.

Figure 20. Deprivation distribution for each age group



3. Multidimensional deprivation indices

The following section presents the multidimensional deprivation indices for the four age groups.

The multidimensional deprivation headcount in% (H) indicates the prevalence of children experiencing multidimensional deprivation.
In Burundi, a child is considered to be multidimensionally deprived if he or she suffers from deprivation in at least three dimensions of his or her well-being.

One observes that the multidimensional deprivation rate increases with the age of the child. A proportion of 57.7% of children aged 0 to 2 years are multidimensionally deprived (see Table 4) compared to 70.6% of children aged 14 to 17 years who face deprivation in at least three analyzed dimensions (see Table 7).

For all age groups, the multidimensional deprivation headcount is almost twice as high in rural areas as in urban areas. For example, 37.2% of children aged 3 to 7 living in urban areas suffer from multidimensional deprivation compared to 65.3% of children of this age living in rural areas (see Table 5).

The average intensity (A) indicates the average number of deprivations among the multidimensional poor children, in percentages and absolute number. Children between the ages of 14 and 17 year who are multidimensionally deprived experience, on average, 4.3 deprivations out of the 8 dimensions, or 54.2% of the total number of the analyzed dimensions (see Table 7). The differences based on area of residence are smaller in terms of intensity of deprivation.

The adjusted multidimensional deprivation headcount (Mo) is an index from 0 to 1, which allows for comparison of geographical regions and population groups. The Mo considers both the prevalence and intensity of deprivation. The higher the index, the higher the level of multidimensional deprivation. For children aged 8 to 13, Mo is 0.20 in urban areas opposed to 0.36 in rural areas (see Table 6).

Table 4: Multidimensional deprivation indices at the national level and by area of residence using a threshold of K=3, 0–2 years

	Multi dimensional deprivation headcount (H), %	Average intensity among the multi dimensionally poor (A); %	Average no. of deprivations among the multidimensionally poor (A)	Adjusted multidimensional deprivation headcount (M_0)
National	57.7	55.8	3.9	0.32
Urban	30.2	51.8	3.6	0.16
Rural	60.8	56.0	3.9	0.34

Table 5: Multidimensional deprivation indices at the national level and by area of residence using a threshold of K=3, 3– 7 years

	Multi dimensional deprivation headcount (H), %	Average intensity among the multi dimensionally poor (A); %	Average no. of deprivations among the multidimensionally poor (A)	Adjusted multidimensional deprivation headcount (M_0)
National	62.8	50.2	4.0	0.32
Urban	37.2	45.7	3.7	0.17
Rural	65.3	50.5	4.0	0.33

Table 6: Multidimensional deprivation indices at the national level and by area of residence using a threshold of K=3, 8–13 years

	Multi dimensional deprivation headcount (H), %	Average intensity among the multi dimension-ally poor (A); %	Average no. of depri-vations among the multidi-mensionally poor (A)	Adjusted multidi-mensional deprivation headcount (M_0)
National	65.2	52.9	4.2	0.35
Urban	41.1	47.9	3.8	0.20
Rural	67.7	53.2	4.3	0.36

Table 7: Multidimensional deprivation indices at the national level and by area of residence using a threshold of K=3, 14–17 years

	Multi dimensional deprivation headcount (H), %	Average intensity among the multi dimension-ally poor (A); %	Average no. of deprivations among the multidi-mensionally poor (A)	Adjusted multidi-mensional deprivation headcount (M_0)
National	70.6	54.2	4.3	0.38
Urban	42.0	47.9	3.8	0.20
Rural	74.0	54.6	4.4	0.40

4. Overlap analysis

In addition, the MODA methodology analyses the overlap between the dimensions of child well-being. First, the overlap is presented by each dimension, then the overlap between combinations of three dimensions.

Overlap by each dimension

As mentioned previously, most children in Burundi suffer from multiple deprivations simultaneously. Figures 21A-21D show the overlap in child deprivation by dimension for each age group.

The proportion of children only deprived in the specified dimension is low across all ages. For example, 66.9% of children aged 0 to 2 years face deprivation in the Nutrition dimension.
Among them, only 3.2% are deprived in the Nutrition dimension only while 63.7% are deprived in at least one other dimension at the same time.

Figure 21D shows a deprivation rate of 65.3% for the Sanitation dimension for children aged 14 to 17 years, of which 2.5% are deprived in the Sanitation dimension only and 24.5% of children are simultaneously deprived in four or more other dimensions.

Figure. 21: Overlap in child deprivation by dimension and age group

Fig.21.A : Overlap in child deprivation by each dimension, 0-2 years, deprivation rate in %

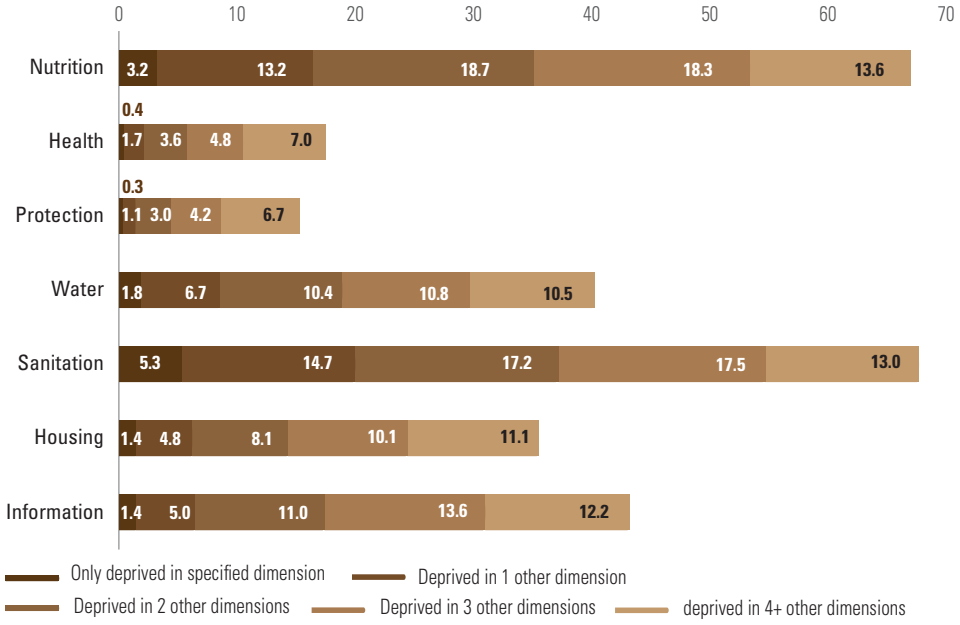


Fig. 21.B : Overlap in child deprivation by each dimension, 3-7 years, deprivation rate in %

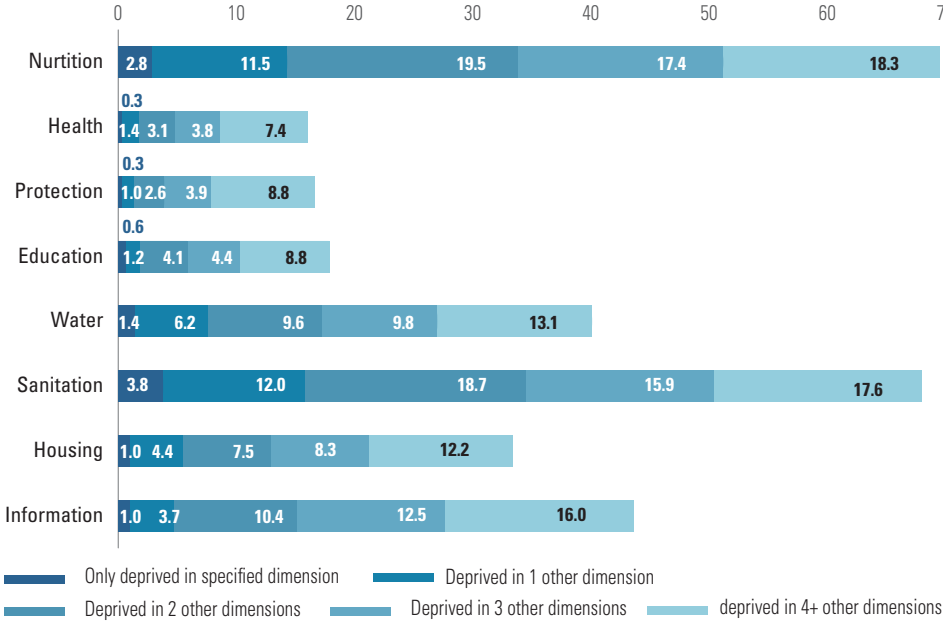


Fig. 21.C. Overlap in child deprivation by each dimension, 8-13 years, deprivation rate in %

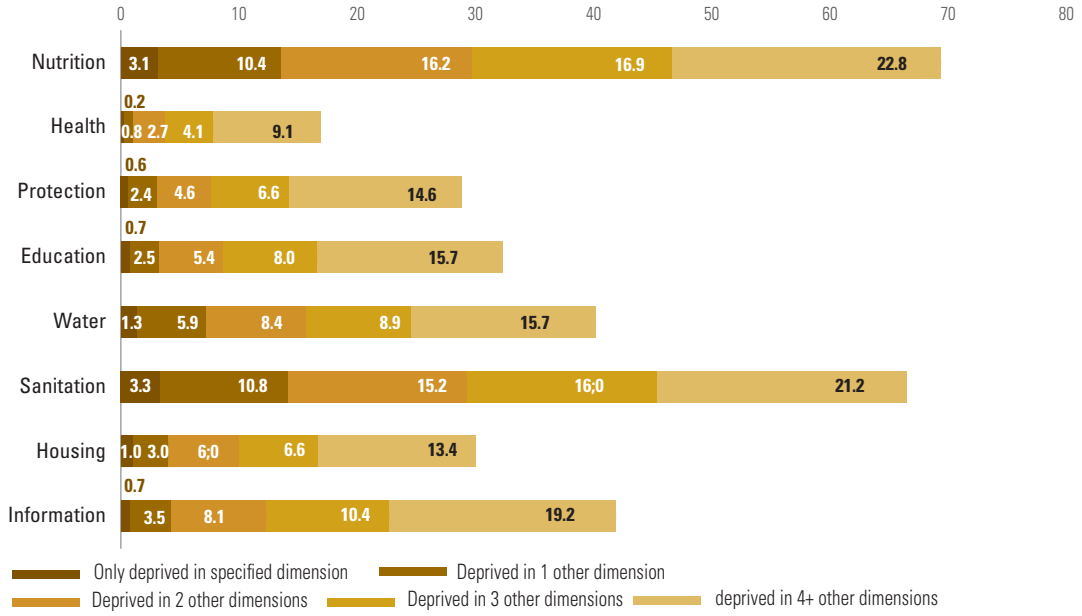
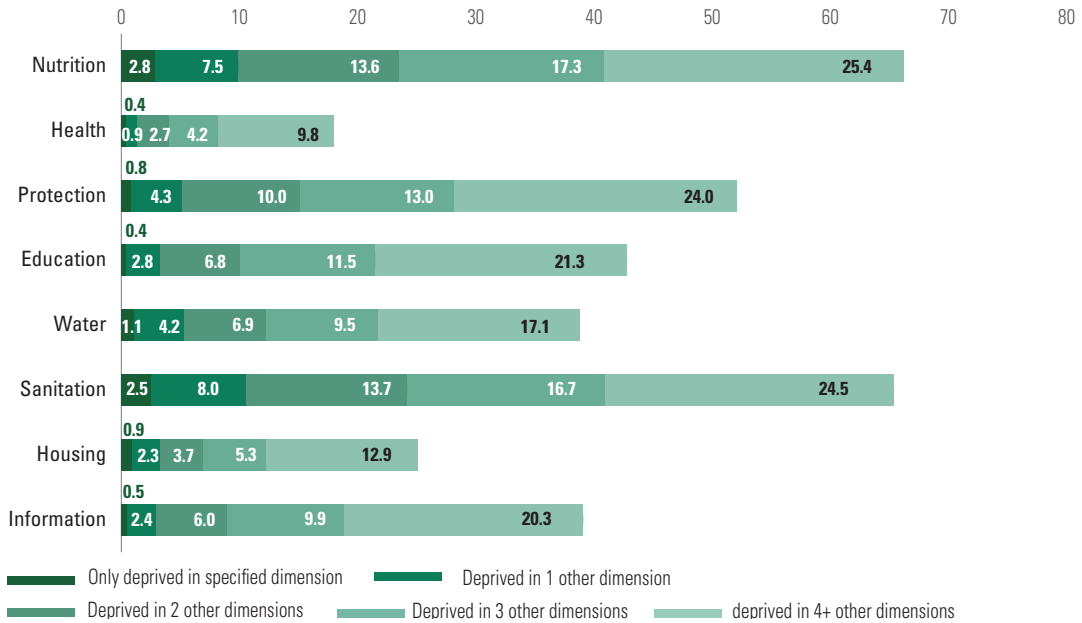


Fig. 21.D : Overlap in child deprivation by each dimension, 14-17 years, deprivation rate in %



✻ *Three-way overlap*

This analysis also provides the overlap between all possible combinations of three dimensions (see Annex A.6).
However, for reasons of brevity, the most relevant examples are presented below as a Venn diagram to observe the overlap between three dimensions.

These figures present the following information:
- deprivation rates for each dimension separately;
- deprivation overlap between two of the three dimensions;
- deprivation overlap between all of the three dimensions; and
- the proportion of children who are not deprived in any of the considered dimensions.

The overlap between the Nutrition, Sanitation and Information dimensions is 23.9% for children aged 0-2 years (see Figure 22). In addition, the proportion of deprived children in the Information dimension only is 3.2%.
About one in five children is deprived in both Nutrition and Sanitation but not in the Information dimension, while 13.4% of children are deprived in none of the three analyzed dimensions.
Thus, it appears that all three aspects of child well-being are interrelated for this age group.
Subsequently, a policy aimed at improving access as well to healthy food, improved toilet facilities, and communication and information devices would be useful to improve the living conditions of many children aged 0 to 2 years.

For children aged 3 to 7 years, the Nutrition, Water and Sanitation dimensions show a considerable overlap of 19.7% with 3.6% of children deprived in the Water dimension only (see Figure 23). The Venn diagram also indicates that 27.3% of children are deprived in both the Nutrition and Sanitation dimensions but not in the Water dimension. For this combination, around 12.6% of children do not suffer from any deprivation.

Furthermore, we observe that 9.6% of children aged 8 to 13 years are simultaneously deprived in the dimensions Nutrition, Education and Housing, which is presented in Figure 24.
The proportion of children deprived in the Nutrition dimension only stands at 29.0% while 12.9% of children suffer from deprivation in the Nutrition and Education dimensions but not in the Housing dimension.
Moreover, 21.5% of children are not deprived in any of the three analyzed dimensions.

As displayed in the last Venn diagram (Figure 25), 20.7% of children aged 14 to 17 years are simultaneously deprived in the Nutrition, Child protection and Education dimensions.
Moreover, only 2.5% suffer from deprivation in Education only whereas 19.3% of children are not deprived in any of the three analyzed dimensions.
Therefore, it would be desirable to implement an intervention aimed at improving access to adequate nutrition and education, while ensuring the protection of the child at the individual level, especially in improving access to civil status services.

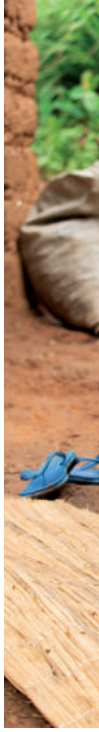


Figure 22: Three-way overlap between the dimensions Nutrition, Sanitation and Information, 0-2 years

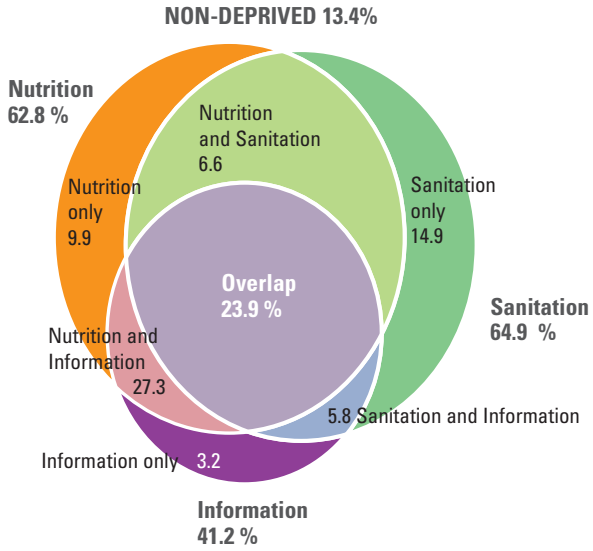


Figure 23: Three-way overlap between the dimensions Nutrition, Water and Sanitation, 3-7 years

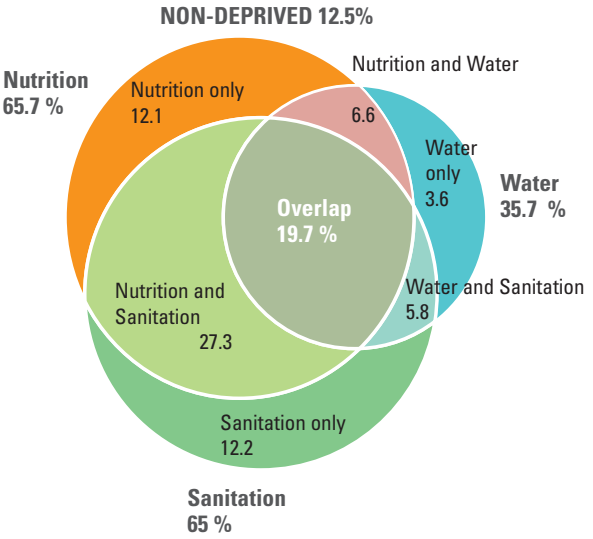


Figure 24: Three-way overlap between the dimensions Nutrition, Education and Housing, 8-13 years

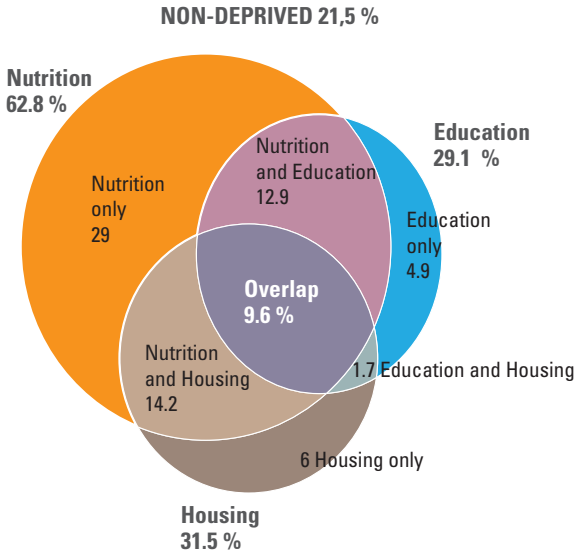
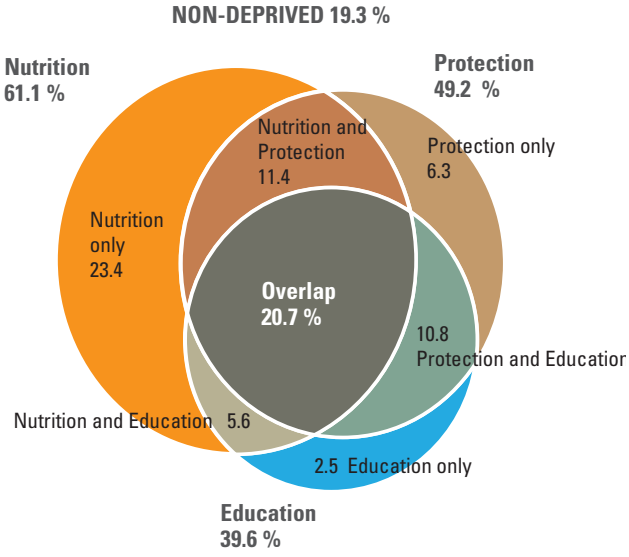


Figure 25: Three-way overlap between the dimensions Nutrition, Child protection and Education, 14-17 years



5. Overlap between monetary poverty and multidimensional deprivation

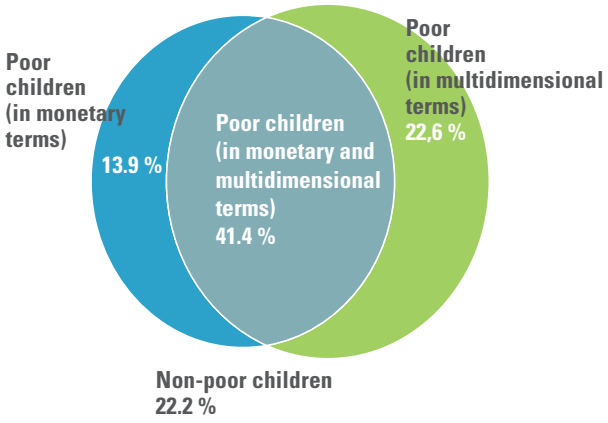
Previously, the report analyzed monetary poverty and multidimensional deprivation separately.

Previously, the report analyzed monetary poverty and multidimensional deprivation separately. However, the overlap between the two concepts in Burundi is considerable, but not complete, as shown in Figure 26.

Indeed, 41.4% of children aged 0 to 17 years are both monetary poor and multidimensionally deprived. These children live in households with less than 1,580 FBU per day per adult equivalent and suffer from deprivation in at least 3 out of the 7 or 8 child well-being dimensions analyzed in this study.

In addition, 22.6% of children are only poor in terms of multidimensional deprivation while 13.9% of children are only financially poor. About one in five children is not poor, neither monetarily nor multidimensional.

Figure 26: Overlap between monetary poverty and multidimensional deprivation



5 Conclusions

This report applies the MODA methodology to analyze the overlap of multiple deprivations. The results provide a basis for measuring and assessing child poverty in Burundi in line with Sustainable Development Goal 1 target 1.2 on 'Eliminating poverty in all its forms'.

The selection of parameters is contextualized to the current situation in the country, with contributions from the cross-sectional working group on child poverty, using data from EICVBM 2019-20. However, the limitations of the database must be considered when interpreting the results.
Some indicators and dimensions, while relevant, could not be included in the analysis. The deprivation results are therefore limited to the dimensions and indicators indicated in Section 2.3 Parameter Selection.
In addition, an analysis disaggregated by sex of the child could not be carried out as most parameters were measured at the household level.

As a result, children's multidimensional deprivation has been defined using the following eight dimensions of child well-being: Nutrition, Health, Protection, Education, Water, Sanitation, Housing and Information.
Approximately three out of five children in Burundi (64.0%) suffer from multidimensional deprivation, meaning that they are deprived in at least three of the aforementioned dimensions.
On average, multidimensionally deprived children experience 4.1 deprivations at the same time.

The multidimensional deprivation rate of children varies significantly depending on the area in which they live. Rural areas have a higher prevalence of multidimensional child poverty (66.7%) than urban areas (37.9%).
Moreover, at the regional level, Bujumbura Mairie presents the lowest level of multidimensional deprivation, while 82.1% of children living in Muyinga are deprived in at least three dimensions of their well-being.
All other regions have deprivation rates ranging from 50.5% to 80.8%.

According to other profile variables, it is possible to identify the characteristics of the most vulnerable children. Subsequently, results indicate a higher deprivation rate for children living in households with fewer member and with a labor constraint[19].
This can be explained by the lack of adults having a paid employment. Moreover, a larger proportion of children without health insurance is deprived in at least three dimensions.
The report was unable to draw conclusions on the issue of gender, as few indicators were observed at the child level, causing a lack of variance.

The sectoral deprivation analysis presents the highest deprivation rates for the dimensions Nutrition (all age groups) and Sanitation (all age groups).
This is mainly due to the food insecurity and unimproved toilet type indicators.
The "Health" dimension shows the lowest deprivation rate for each age group, followed by Child Protection for all ages, except for children aged 14 to 17 years.

In addition, it is observed that Burundian children tend to face overlapping deprivation.
For example, 20.7% of children aged 14 to 17 are simultaneously deprived in the dimensions Nutrition, Child protection, and Education.
The monetary poverty rate stands at 55.3% at the national level for children aged 0-17 years.
Moreover, the overlap between monetary and multidimensional poverty affects 41.4% of children.
Only 22.2% of Burundian children suffer from neither monetary deprivation nor multidimensional deprivation.

19. Labor constraint is a variable that indicates the number of people in a household who depend on members of the labor market. This indicator divides the number of non-active persons by the number of active persons.

6

Policy recommendations to address child poverty

The results of the MODA analysis in Burundi, on the EICVMB 2019-20 database, show deprivation in various aspects of child well-being as well as an overlap of deprivations between the selected dimensions.

It is therefore necessary to address deprivations simultaneously and to tackle the underlying causes that generate them:

1. As the majority of children in Burundi experience multiple deprivations,

it is important to adopt a long-term holistic approach that addresses all major deprivations along the life cycle, to help inform, design and implement multi-sectoral policies that significantly and effectively reduce children's vulnerabilities while maximizing returns in the early years. Such integrated interventions will lead to a considerable decrease in the severity or depth of poverty and are also more effective

Integrate into the National Integrated Food and Nutrition Program (PRONIANUT) components that
• promote adequate and safe sanitation practices within communities in order to tackle deprivations in the nutrition and sanitation dimensions which are highest for all age groups, and which overlap most often,
• contribute to improving the reduction and prevention of malnutrition in children.

Incorporate into the support measures of the cash for jobs program modules that strengthen the economic inclusion of beneficiaries and raise their awareness of good practices in food, sanitation and adequate hygiene, child protection, and education, including preschoole.

Embed and integrate the MODA results in the review of the National Development Plan, the development of public policies, strategies, programs including municipal development plans.

2. Implement interventions that focus on the dimensions that contribute most to multidimensional child poverty.

While it is essential to design policies and programs to reduce vulnerabilities in all dimensions of child well-being, in the short term it is recommended that interventions focus on dimensions showing the higher deprivation rates.
In Burundi, the Nutrition and Sanitation dimensions present the highest percentages of deprived children among all age groups.

Promote healthy and diversified eating habits among parents and communities, particularly among vulnerable populations. This can be embedded and monitored within the framework of school.

Raise awareness of increased health risks (e.g., diarrhea) when using shared toilets.

3. Particular attention should be given to the most vulnerable children.

The study highlights that children with certain geographical and socio-demographic characteristics are more likely to have a higher incidence of multidimensional poverty than other children.
The children with the highest multidimensional deprivation rates are those who live in rural areas, those who live in households where the head has a lower education level and those who live in labor-constrained households.

Implement programs focusing on the most vulnerable populations, in particular the provinces with the highest levels of multidimensional poverty, namely Muyinga, Kirundo, Muramvya and Ngozi.

Promote access to basic social services and strengthen the capacities of adolescents to become productive members of society by linking education, vocational training, and entrepreneurship.

4. Improve the level of investment in social protection and other basic social services to address the multidimensional deprivations experienced by children.

Increase the share of the state budget allocated to the social sectors and maintain it above the international standards to which the country has agreed (in particular, 15% for health in accordance with the Abuja declaration and 20% for education).

Increase the level of investment in sanitation infrastructure and establish mechanisms to facilitate access for the most vulnerable households, with the support of community involvement.

Explore the mobilization of innovative financing including, the private sector, in the financing of social protection and basic social services.

5. In order to enable the development, monitoring and evaluation of policies, strategies, programs and budgets developed to tackle child poverty,

it is desirable to reproduce this analysis on a regular basis to monitor the **country's progress on multidimensional and monetary child poverty.**

Bibliography

Alkire, S., and J. Foster. 2011. Counting and multidimensional poverty measurement. Journal of Public Economics 95 (7–8). Elsevier: 476–487.

Alkire, S., and M. E. Santos. 2010. Acute Multidimensional Poverty: A New Index for Developing Countries. OPHI Working Paper 38. University of Oxford.

Banque Mondiale Databank. (2022). Taux de fertilité, total (naissances par femme) – Burundi. Retrieved from https://donnees.banquemondiale.org/indicateur/SP.DYN.TFRT.IN?locations=BI.

De Neubourg, C., M. De Milliano, and I. Plavgo. 2014. Lost (in) Dimensions: Consolidating progress in multidimensional poverty research. UNICEF, Office of research Working Paper. WP 2014 - 4. Florence: UNICEF Office of Research-Innocenti.

De Neubourg, C., J. Chai, M. de Milliano, I. Plavgo, et Z. Wei. 2012. Directives étape par étape pour l'analyse du chevauchement des privations multiples (MODA). Document de travail n° 2012-10, Bureau de recherche de l'UNICEF, Florence. (page 18)

INSBU. 2021. Rapport de l'Enquête Intégrée sur les Conditions de vie des Ménages au Burundi (EICVMB2019-20).

MEEATU. 2009. Politique Nationale de l'Eau. Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme.

MEEATU. 2012.Stratégie Nationale de l'Eau 2011- 2020. Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme, Avril 2012

MEEATU. 2013. Politique Nationale d'Assainissement du Burundi et Stratégie opérationnelle à l'Horizon 2025. Ministère de l'Eau, de l'Environnement, de l'Aménagement du Territoire et de l'Urbanisme.

MENRS. 2022. Plan Sectoriel de l'Éducation 2022-2030. Ministère de l'Éducation Nationale et de la Recherche Scientifique.

MSNDPHG. 2012. Politique Nationale Genre du Burundi 2012-2025. Ministère de la Solidarité Nationale, des Droits de la Personne Humaine et du Genre.

MSNDPHG. 2020. Politique nationale pour la protection de l'enfance au Burundi (2020 – 2024). Ministère de la Solidarité Nationale, des Droits de la Personne Humaine et du Genre.

MSPLS. 2016. Politique Nationale de Santé 2016-2025. Ministère de la Santé Publique et de Lutte contre le Sida.

MSPLS 2018. Plan National de Développement Sanitaire III 2019-2023.

MSPLS & MFBPE. 2022. Rapport final de L'Enquête Nationale Sur La Situation Nutritionnelle et de Mortalité au Burundi ENSMB 2022, basée sur la méthodologie SMART. Ministère de la Santé Publique et de Lutte contre le Sida et Ministère des Finances, du Budget et de la Planification Économique.

République du Burundi. 2011. Politique Nationale de Protection Sociale.

République du Burundi. 2011. Vision Burundi 2025.

République du Burundi. 2014. Politique Nationale de l'emploi.

République du Burundi. 2018. Constitution de la République du Burundi.

République du Burundi. 2018. Plan National De Développement du Burundi_ PND Burundi 2018-2027.

République du Burundi & Nations Unies. 2019. Agenda conjoint des Nations Unies pour renforcer la sécurité alimentaire et nutritionnelle au Burundi (2019-2023).

République du Burundi. 2020. Loi n° 1/12 du 12 mai 2020 portant code de protection sociale au Burundi.

UNICEF (2007). Global Study on Child Poverty and Disparities 2007-2008. New York: Guide, Division of Policy and Planning.

UNICEF. 2021. Budget Brief 2021-2022, Child Protection. UNICEF Burundi.

Annex

A.1. List of dimensions, indicators and thresholds for measuring multidimensional child poverty in Burundi

Table A.1. List of parameters for measuring multidimensional child poverty based on EICVMB 2019-2020

DIMENSION	INDICATOR	THRESHOLD	0-2 YEARS	3-7 YEARS	8-13 YEARS	14-17 YEARS
Nutrition	Household consumption	**0-17 years:** The child lives in a household which did not consume food from the following four food groups: energy food products (starch-grains and derivatives-fats), vegetable protein products (legumes), animal protein products (meat-fish-eggs) and products containing vitamins (fruits and vegetables) in the last seven days.	x	x	x	x
	Food insecurity	**0-17 years:** Child living in a food insecure household (Food Insecurity Experience Scale - FIES) **The child is considered as deprived if the household answered "Yes" to at least four of the following questions:** **In the last 12 months, ...** - were you or other members of your household concerned about not having enough food due to lack of money or other resources? - were you or other household members unable to eat healthy, nutritious food due to lack of money or other resources? - have you or other members of the household eaten little variety of food due to lack of money or other resources? - have you or other household members had to skip a meal because you did not have enough money or other resources to buy food? - did you or other household members eat less than you thought you should have because of lack of money or other resources? - you or other members of your household were hungry but did not eat because there was not enough money or other resources to buy food? - did you or other members of your household spent an entire day without food due to lack of money or other resources?	x	x	x	x
Health	Skilled birth attendance	**0-4 years:** The child was not delivered by a skilled birth attendant.	x	x (3-4 years)		
	Use of mosquito net	**0-17 years:** The child did not sleep under a mosquito net during the previous night.	x	x	x	x
Education	School attendance	**6-17 years:** The child does not attend school.		x (6-7 years)	x	x
	Primary school attainment	**14-17 years:** The child did not complete primary education.				x
	Literacy	**8-17 years:** The child cannot read and write a short text in any of the following languages: French, Kirundi, Swahili and English.			x	x
Child protection	Birth certificate	**0-17 years:** The child does not have a birth certificate	x	x	x	x
	Child labour (paid and unpaid)	**5-17 years:** The child was paid to do a job over the last 7 days or the child has a job.		x (5-7 years)	x	x
Water	Drinking water source	**0-17 years:** The child lives in a household which uses an unimproved drinking water source. **Unimproved water sources:** unprotected well, other unprotected sources, river/lake/dam, water from street vendor, other. **Improved water sources:** within dwelling/yard, neighbor's tap, public tap, protected borehole, other protected sources, bottled water.	x	x	x	x
	Distance to water source (in minutes)	**0-17 years:** The child lives in a household where the distance to go, fetch water and come back is more than 30 minutes.	x	x	x	x

DIMENSION	INDICATOR	THRESHOLD	0-2 YEARS	3-7 YEARS	8-13 YEARS	14-17 YEARS
Sanitation	Toilet type	**0-17 years:** The child lives in a household which uses an unimproved toilet source. **Unimproved toilet sources:** Flush to open drain, bucket toilet, hanging toilet/latrine, traditional pit latrine without slab, no toilet, other. **Improved toilet sources:** Flush to piped sewer system, Flush to septic tank, , Flush to pit latrine, Flush to don't know where, Traditional pit latrines with slab, composting toilet.	x	x	x	x
	Shared toilet	**0-17 years:** The child lives in a household which shares sanitation facilities with at least 1 other household.	x	x	x	x
Housing	Overcrowding	**0-17 years:** The child lives in a household which has on average more than three people per sleeping room (UN-HABITAT definition).	x	x	x	x
	Materials of the roof	**0-17 years:** Child lives in a household where the roof is made of natural or rustic materials, which are not considered permanent. (UN-HABITAT. **Unimproved roof:** no roof, thatch/palm/leaves, mats, palm/bamboo, wood planks, cardboard, other. **Improved roof:** metal sheets, wood, zinc/cement fibres, tiles, shingles, cement, tent (Ishitingi/ihema).	x	x	x	x
Information	Access to information and communication devices	**0-17 years:** The child lives in a household or there are no information and communication devices (radio, television or mobile phone).	x	x	x	x

A.2. Formulas used

Multidimensional child poverty is estimated using the following formulas for a previously established multidimensional deprivation threshold (k):

H, multidimensional child deprivation headcount :

the percentage of children in a given age group who are multidimensionally deprived for a threshold k

$$H = \frac{q_K}{n_a}$$

$$q_K = \sum_{i=1}^{n} y_K$$

Where:
H – multidimensional child deprivation headcount ratio according to cut-off point K in age group a;
q_K – number of children affected by at least K deprivations in the age group a;
n_a – total number of children in the age group a ;
y_K – deprivation status of a child i depending on the cut-off point;
D_i – number of deprivations each child i experiences;
K – cut-off point.

A, the average intensity of multidimensional deprivation:

the average number of deprivations suffered by multidimensionally deprived children (threshold k) in absolute value or as a percentage of the total number of dimensions considered for the analysis.

$$A = \frac{\sum_1^{q_K} c_K}{q_K \times d}$$

Where:
A – average intensity of multidimensional deprivation according to the cut-off point K for the age group a;
q_K – number of children affected by at least K deprivations in the age group a;
d – total number of dimensions considered per child within the relevant age group a;
c_K – number of deprivations each multidimensionally deprived child i experiences, with $c_K = D_i \times y_K$

M_0, adjusted multidimenisonal deprivation headcount index:

the product of H et A (for a threshold of k), in%, resulting in an index ranging from 0 to 1 sensitive to both the incidence and the intensity of multidimensional deprivation.

$$M_0 = H \times A = \frac{\sum_1^{q_K} c_K}{n_a \times d}$$

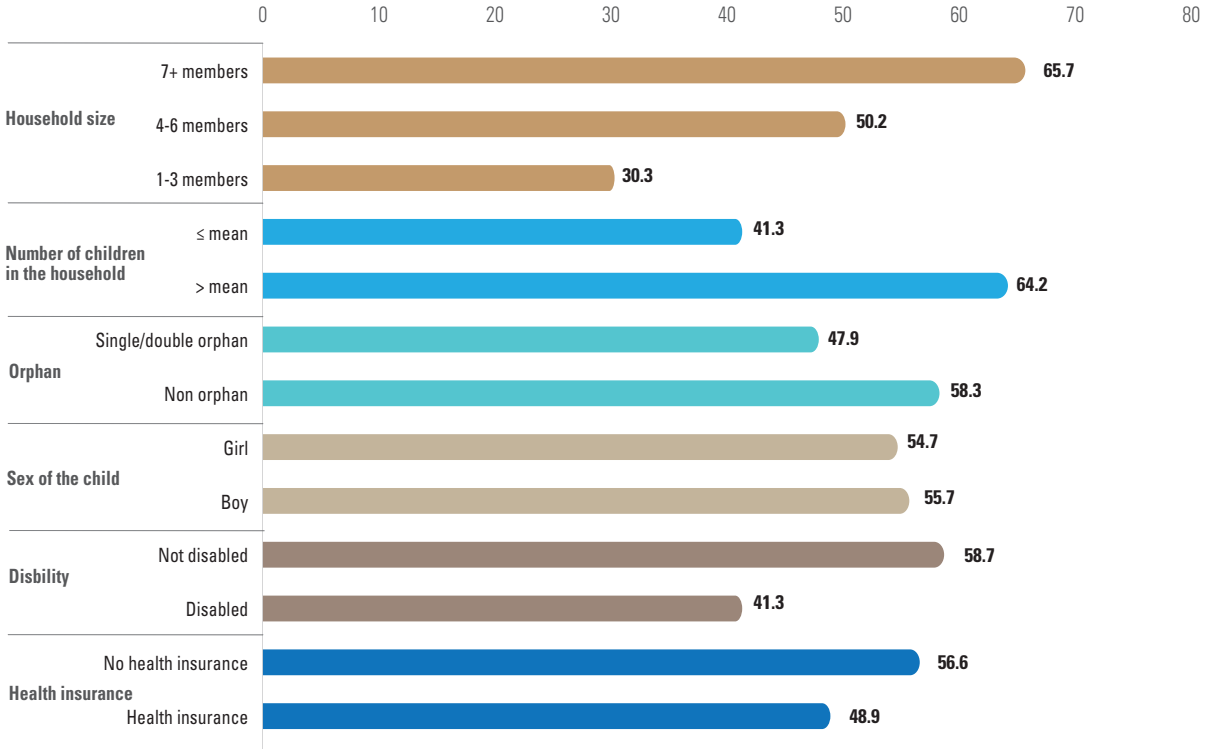
Where:
M_0 – adjusted multidimensional child deprivation headcount ratio among children affected by at least K deprivations in age group a;
q_K – number of children affected by at least K deprivations in the age group a;
cK – number of deprivations each multidimensionally deprived child i experiences, with $c_K = D_i \times y_K$;
n_a – total number of children in the age group a;
d – total number of dimensions considered per child within the relevant age group a.

A.3. Profiling variables

National	National
Area of residence	Rural
	Urban
Province	Rumonge
	Bujumbura Mairie
	Ruyigi
	Rutana
	Ngozi
	Mwaro
	Muyinga
	Muramvya
	Makamba
	Kirundo
	Kayanza
	Karusi
	Gitega
	Cibitoke
	Cankuzo
	Bururi
	Bujumbura
	Bubanza

Household size	7+ members
	4–6 members
	1–3 members
Number of children in the household	No. of children equal or below mean
	No. of children above mean
Orphan status	Single/double orphan
	No orphan
Labour constraint	Dependency ratio>2
	No labour constraint
Sex of the child	Girl
	Boy
Disability	Not disabled
	Disabled
Health insurance	No health insurance
	Health insurance

A.4. Monetary poverty by profiling variables (in %)



A.5. Privation de dimension par groupe d'âge

1. AGE 0-2 YEARS (less than 3 years)		DIMENSION						
		NUTRITION	HEALTH	CHILD PRO-TECTION	WATER	SANITATION	HOUSING	INFORMA-TION
National	National	66.9	17.5	15.3	40.2	67.8	35.6	43.3
Area of residence	Rural	69.3	18.5	16.0	43.4	68.2	35.7(*)	46.0
	Urban	45.6	8.8	9.1	11.8	64.8	34.4(*)	19.2
Province	Rumonge	61.7	17.3	6.9	36.1	62.2	39.1	48.2
	Bujumbura Mairie	39.5	5.0	8.5	5.1	62.9	36.2	18.7
	Ruyigi	61.8	15.2	3.3	42.9	86.8	44.0	33.5
	Rutana	60.7	24.4	21.0	24.9	55.9	36.8	44.4
	Ngozi	81.1	30.0	26.2	52.6	84.1	25.4	50.5
	Mwaro	26.0	16.7	6.3	41.8	33.3	25.6	36.7
	Muyinga	75.9	23.6	15.9	69.3	89.0	43.2	48.1
	Muramvya	67.5	22.5	4.6	43.4	96.7	16.5	77.1
	Makamba	66.7	15.6	35.2	52.8	63.8	35.6	34.1
	Kirundo	84.7	22.9	27.5	54.6	78.9	40.7	50.6
	Kayanza	66.4	9.2	19.2	36.3	71.4	21.5	47.4
	Karusi	72.9	11.4	11.6	27.5	42.2	34.9	50.7
	Gitega	61.8	10.9	4.5	41.6	54.5	25.8	36.2
	Cibitoke	81.8	18.2	13.8	30.6	71.2	48.7	37.0
	Cankuzo	49.6	27.6	13.7	51.4	72.3	37.2	41.2
	Bururi	59.8	16.2	28.4	32.1	50.0	44.6	39.8
	Bujumbura	73.3	21.9	13.8	22.8	70.5	39.6	43.3
	Bubanza	65.9	6.3	6.9	28.7	43.5	41.3	46.7
Household size	7+ members	65.4(*)	17.3(*)	16.2(*)	38.1(*)	64.1	49.0	35.4
	4-6 members	68.0(*)	17.9(*)	15.9(*)	40.1(*)	69.5	33.0	45.3
	1-3 members	66.4(*)	16.7(*)	10.8(*)	45.2(*)	69.9	15.2	53.6
Number of children in the household	No. of children equal or below mean	66.3(*)	16.4(*)	14.5(*)	40.5(*)	68.8	33.3	45.3(*)
	No. of children above mean	67.5(*)	18.8(*)	16.1(*)	39.9(*)	66.8	38.1	41.2(*)
Orphan status	Single/double orphan	68.6(*)	20.9	14.8(*)	38.0(*)	66.6(*)	26.2	52.5
	No orphan	66.4(*)	16.6	15.4(*)	40.8(*)	68.2(*)	38.3	40.6
Labour constraint	Dependency ratio>2	69.3(*)	18.9(*)	17.2(*)	40.4(*)	67.5	48.1	47.0
	No labour constraint	65.8(*)	17.0(*)	14.4(*)	40.1(*)	68.0	29.9	41.6
Sex of the child	Girl	66.6(*)	16.3(*)	15.0(*)	42.1(*)	67.8(*)	35.5(*)	43.6(*)
	Boy	67.2(*)	18.9(*)	15.6(*)	38.2(*)	67.9(*)	35.7(*)	43.1(*)
Health insurance	No health insurance	67.6(*)	18.0(*)	15.8(*)	40.8(*)	69.2	35.8(*)	43.8(*)
	Health insurance	62.9(*)	14.5(*)	11.8(*)	36.9(*)	59.6	33.6(*)	39.6(*)

Note: (*) Statistically insignificant differences for a Chi-squared independence test ($p<0.05$). This means that the difference between the same variables is not significant

2. AGE 3-7 YEARS (less than 8 years)		DIMENSION							
		NUTRITION	HEALTH	CHILD PROTECTION	EDUCATION	WATER	SANITATION	HOUSING	INFORMATION
National	National	69.4	16.0	16.6	47.7	40.1	68.1	33.5	43.7
Area of residence	Rural	71.3	16.8	17.2	50.1	42.7	68.5	33.1(*)	46.0
	Urban	49.7	7.7	10.8	24.5	13.5	63.5	37.3(*)	20.2
Province	Rumonge	57.5	11.8	5.7	57.1	30.3	64.9	41.0	49.9
	Bujumbura Mairie	42.3	5.6	10.4	12.6	4.2	63.0	40.9	18.3
	Ruyigi	68.7	16.4	5.6	56.7	39.2	86.3	41.8	34.5
	Rutana	58.6	15.6	21.2	55.7	25.4	54.6	29.3	46.0
	Ngozi	75.2	23.0	28.5	60.7	53.5	79.9	25.5	45.4
	Mwaro	26.4	15.7	7.7	28.2	47.8	35.3	19.4	35.3
	Muyinga	77.6	21.7	15.1	54.4	70.0	85.1	38.3	51.6
	Muramvya	70.5	18.4	5.7	31.7	45.9	99.2	19.3	74.2
	Makamba	74.7	9.3	27.1	42.5	51.9	72.0	28.7	27.4
	Kirundo	85.2	24.4	32.7	60.9	51.8	79.6	35.3	55.4
	Kayanza	73.5	14.1	19.5	38.6	33.5	68.9	24.7	46.0
	Karusi	73.0	7.8	17.3	52.6	27.1	40.4	29.9	52.7
	Gitega	65.8	13.4	5.1	44.7	43.6	56.7	26.0	39.0
	Cibitoke	78.4	18.6	15.7	53.1	31.8	68.6	45.1	38.2
	Cankuzo	58.0	26.3	24.9	50.3	45.4	77.2	35.7	41.0
	Bururi	60.8	13.7	23.6	22.0	29.8	42.6	42.4	37.8
	Bujumbura	81.5	18.3	11.0	47.4	24.3	75.4	39.3	41.6
	Bubanza	69.6	5.1	8.2	53.0	26.1	45.6	41.0	46.1
Household size	7+ members	65.6	15.1(*)	16.8	49.4(*)	38.2(*)	63.0	47.2	35.4
	4-6 members	71.3	16.3(*)	15.9	46.2(*)	41.6(*)	70.9	24.8	46.7
	1-3 members	77.0	18.8(*)	21.6	47.8(*)	40.2(*)	75.2	21.1	68.0
Number of children in the household	No. of children equal or below mean	70.8(*)	16.0(*)	17.1(*)	45.5	40.7(*)	70.8	28.4	48.4
	No. of children above mean	68.5(*)	16.0(*)	16.3(*)	48.9	39.7(*)	66.2	36.9	40.6
Orphan status	Single/double orphan	74.0	18.2	20.6	43.1	41.0(*)	69.4	26.4	54.7
	No orphan	67.7	15.2	15.2	49.6	39.8(*)	67.6	36.1	39.6
Labour constraint	Dependency ratio>2	71.3	17.0	19.0	49.8	40.8	67.5	44.5	48.3
	No labour constraint	68.2	15.4	15.1	46.1	39.7	68.4	26.3	40.8
Sex of the child	Girl	69.8(*)	15.9(*)	16.9(*)	46.1(*)	40.7(*)	68.1(*)	34.1(*)	44.0(*)
	Boy	69.0(*)	16.1(*)	16.4(*)	49.2(*)	39.5(*)	68.0(*)	32.9(*)	43.5(*)
Disability	Not disabled	76.6	9.5(*)	15.7(*)	59.5	45.9	64.8(*)	37.4(*)	51.4(*)
	Disabled	69.4	14.0(*)	19.1(*)	47.0	39.3	68.4(*)	31.6(*)	43.9(*)
Health insurance	No health insurance	71.2	17.3	17.5	49.1	40.1(*)	70.1	34.8	45.3
	Health insurance	60.8	9.8	12.5	42.0	40.3(*)	58.3	27.1	36.3

Note: (*) Différences statistiquement significatives pour un test de x^2 ($p<0.05$).

3. AGE 8-13 YEARS (less than 14 years)		DIMENSION							
		NUTRITION	HEALTH	CHILD PROTECTION	EDUCATION	WATER	SANITATION	HOUSING	INFORMATION
National	National	69.4	17.0	29.0	32.3	40.1	66.5	29.9(*)	42.0
Area of residence	Rural	70.9	17.7	29.8	34.0	42.8	67.2	29.5(*)	44.3
	Urban	54.7	9.5	20.9	15.3	14.3	59.7	33.8	18.9
Province	Rumonge	60.1	10.6	9.8	32.0	29.5	65.7	39.3	51.6
	Bujumbura Mairie	45.9	7.3	14.4	12.8	6.0	53.1	36.4	14.6
	Ruyigi	68.9	14.0	7.6	36.6	46.0	80.7	38.1	32.0
	Rutana	59.7	6.2	39.1	38.4	30.3	55.8	30.9	43.4
	Ngozi	75.3	24.4	45.0	44.5	46.3	79.4	18.0	45.0
	Mwaro	32.4	14.0	15.8	23.7	51.9	38.5	20.0	33.5
	Muyinga	77.1	26.4	38.6	41.3	70.5	84.5	31.3	50.4
	Muramvya	63.9	18.2	7.5	11.3	46.5	98.4	14.2	70.4
	Makamba	71.4	8.7	28.6	34.0	51.7	69.8	31.8	24.8
	Kirundo	85.5	26.3	43.0	43.1	53.7	77.3	29.8	51.0
	Kayanza	69.6	16.4	40.4	32.0	36.0	69.3	19.1	48.1
	Karusi	76.0	8.8	37.0	42.7	28.0	34.2	29.0	52.0
	Gitega	65.7	15.9	16.5	20.4	38.9	57.0	22.6	35.5
	Cibitoke	81.0	24.1	35.7	36.3	35.2	66.1	39.6	34.5
	Cankuzo	61.9	22.0	51.6	36.9	46.5	76.7	32.5	47.7
	Bururi	53.4	11.8	27.2	19.4	26.7	46.8	39.7	37.6
	Bujumbura	82.6	23.8	21.1	29.0	24.7	76.0	38.8	38.1
	Bubanza	70.0	4.5	15.2	22.5	27.4	42.1	37.2	42.4
Household size	7+ members	66.5	14.7	26.4	29.1	40.2(*)	63.3	43.1	33.6
	4-6 members	71.6	18.9	30.8	35.9	40.7(*)	69.0	17.1	47.4
	1-3 members	76.4	20.7	36.1	32.7	36.1(*)	73.0	17.1	67.5
Number of children in the household	No. of children equal or below mean	71.2(*)	18.1(*)	35.9	35.5(*)	39.4(*)	67.6	16.9	47.8
	No. of children above mean	68.5(*)	16.4(*)	25.7	30.9(*)	40.5(*)	65.9	36.0	39.2
Orphan status	Single/double orphan	72.1	19.7	35.9	36.9	41.1(*)	68.2	23.3	52.8
	No orphan	68.1	15.7	25.9	30.3	39.7(*)	65.7	32.8	37.1
Labour constraint	Dependency ratio>2	71.3	18.4	29.9(*)	33.2	41.0	67.9(*)	41.9	48.4
	No labour constraint	67.8	15.8	28.2(*)	31.6	39.5	65.3(*)	20.3	36.8
Sex of the child	Girl	69.2(*)	16.4(*)	29.2	29.9(*)	39.8(*)	66.0(*)	29.0(*)	41.9(*)
	Boy	69.5(*)	17.5(*)	28.8	34.8(*)	40.5(*)	66.9(*)	30.8(*)	42.0(*)
Disability	Not disabled	74.8	21.8(*)	33.4(*)	46.1	50.5	62.0(*)	30.2(*)	43.3(*)
	Disabled	69.0	16.6(*)	28.7(*)	31.4	39.5	66.7(*)	29.9(*)	41.8(*)
Health insurance	No health insurance	71.3	18.4	30.9	33.9	40.2(*)	69.1	30.7	43.3
	Health insurance	60.9	10.8	20.5	25.6	40.1(*)	54.9	26.4	35.7

Note: (*) Différences statistiquement significatives pour un test de x^2 (p<0.05).

4. AGE 14-17 YEARS (less than 18 years		DIMENSION							
		NUTRITION	HEALTH	CHILD PROTECTION	EDUCATION	WATER	SANITATION	HOUSING	INFORMATION
National	National	66.3	17.9	52.4	43.1	38.8	65.3	25.1	39.2
Area of residence	Rural	68.9	18.4	54.2	44.3	41.7	66.9	25.3(*)	42.0
	Urban	45.0	14.4	37.4	32.5	13.8	52.5	23.3(*)	15.8
Province	Rumonge	49.8	7.3	18.9	25.1	27.2	55.2	31.8	41.8
	Bujumbura Mairie	38.9	9.4	36.7	27.6	3.8	53.8	29.7	14.6
	Ruyigi	67.2	14.0	35.8	61.0	40.1	80.2	27.3	30.9
	Rutana	60.3	7.9	73.7	46.3	26.8	59.1	23.5	47.5
	Ngozi	70.0	18.4	70.0	51.0	51.7	82.2	16.4	42.0
	Mwaro	35.1	13.9	49.1	28.0	40.6	41.9	17.2	34.9
	Muyinga	76.9	33.3	62.0	51.9	69.6	84.7	35.8	59.1
	Muramvya	66.8	16.9	38.9	33.4	45.9	98.1	9.6	77.7
	Makamba	66.7	14.5	50.9	47.4	44.1	71.3	28.3	22.5
	Kirundo	83.1	26.8	62.3	54.7	54.8	83.1	24.5	49.5
	Kayanza	70.5	18.3	62.7	46.6	39.2	66.7	17.0	44.2
	Karusi	76.7	12.3	71.2	51.9	36.3	39.4	20.4	52.2
	Gitega	64.0	17.4	47.0	42.4	42.8	51.8	16.1	27.1
	Cibitoke	80.1	25.1	56.3	43.3	34.3	60.2	38.1	31.7
	Cankuzo	58.1	21.3	74.3	63.8	45.0	77.0	29.1	40.3
	Bururi	55.1	15.7	55.4	32.1	22.2	41.5	30.2	29.4
	Bujumbura	79.2	25.1	36.8	23.3	18.0	70.7	34.8	34.2
	Bubanza	63.9	9.6	29.9	36.4	32.1	47.3	24.8	38.9
Household size	7+ membres	64.0	16.0	49.4	40.6	38.9(*)	61.7	35.3	33.2
	4-6 membres	69.4	19.6	54.1	44.2	38.6(*)	68.7	12.1	42.1
	1-3 membres	67.9	22.7	63.3	52.6	38.3(*)	73.3	16.8	62.1
Number of children in the household	Égal ou inférieur à la moyenne	68.2(*)	18.2(*)	54.9(*)	43.4(*)	36.2	65.6	12.6	43.0(*)
	Supérieur à la moyenne	65.2(*)	17.8(*)	50.9(*)	42.8(*)	40.3	65.2	32.8	36.8(*)
Orphan status	Mère et/ou père est décédé(e)	66.6(*)	20.5	60.4	50.4	35.9	67.0	18.9	43.2
	Non orphelin	66.2(*)	16.5	47.9	38.9	40.4	64.4	28.6	37.0
Labour constraint	Taux de dépendance >2	68.1	19.7(*)	54.6	47.0	41.8	67.5(*)	34.1	47.9
	Pas de contrainte	65.1	16.7(*)	50.9	40.2	36.6	63.8(*)	18.8	33.1
Sex of the child	Féminin	65.0(*)	16.6(*)	54.1(*)	42.2(*)	38.5(*)	65.2(*)	25.8(*)	37.9(*)
	Masculin	67.7(*)	19.4(*)	50.7(*)	44.0(*)	39.0(*)	65.5(*)	24.5(*)	40.5(*)
Disability	Non invalidité	73.2	18.2(*)	57.7(*)	59.9	45.7	67.8(*)	27.0(*)	35.0(*)
	Invalidité	65.8	17.9(*)	52.1(*)	41.8	38.2	65.1(*)	25.1(*)	39.5(*)
Health insurance	Pas d'assurance	66.3	17.9	52.4	43.1(*)	38.8	65.3	25.1(*)	39.2
		68.9	18.4	54.2	44.3(*)	41.7	66.9	25.3(*)	42.0

Note: (*) Différences statistiquement significatives pour un test de x^2 ($p<0.05$).

A.6 Three-way overlap

Table A.2.1. Three-way overlap, 0–2 years

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Sanitation, Housing, Information	13.6%	12.0%	15.9%	4.8%	23.4%	6.0%	6.9%	17.4%
Water, Housing, Information	7.8%	5.6%	9.4%	10.7%	13.1%	12.5%	13.4%	27.6%
Water, Sanitation, Information	13.0%	12.1%	4.1%	16.5%	6.6%	23.3%	7.6%	16.8%
Water, Sanitation, Housing,	10.2%	14.9%	3.2%	15.5%	7.5%	24.3%	7.7%	16.7%
Protection, Housing, Information	4.3%	2.6%	3.0%	14.1%	3.6%	15.5%	19.8%	37.1%
Protection, Sanitation, Information	5.8%	4.3%	1.6%	23.8%	1.9%	31.1%	10.2%	21.5%
Protection, Sanitation, Housing	5.4%	4.7%	1.5%	20.3%	2.0%	34.6%	9.4%	22.3%
Protection, Water, Information	3.0%	2.4%	4.3%	14.1%	3.8%	16.2%	19.8%	36.3%
Protection, Water, Housing	2.8%	2.6%	4.0%	10.5%	4.1%	19.9%	19.1%	37.0%
Protection, Water, Sanitation	4.1%	1.3%	6.0%	21.0%	2.1%	9.4%	33.9%	22.3%
Health , Housing, Information	4.4%	2.9%	4.1%	14.0%	4.8%	15.1%	18.7%	35.9%
Health , Sanitation, Information	6.6%	5.1%	2.0%	23.0%	2.7%	30.3%	9.7%	20.7%
Health , Sanitation, Housing	5.5%	6.1%	1.9%	20.1%	2.8%	33.1%	9.0%	21.4%
Health , Water, Information	4.0%	3.1%	4.6%	13.1%	4.6%	15.5%	19.5%	35.5%
Health , Water, Housing	3.0%	4.2%	4.4%	10.4%	4.8%	18.3%	18.8%	36.3%
Health , Water, Sanitation	5.3%	1.8%	6.3%	19.7%	2.9%	8.9%	33.5%	21.5%
Health , Protection, Information	2.1%	1.3%	6.5%	5.2%	6.5%	4.9%	27.5%	46.1%
Health , Protection, Housing	1.7%	1.7%	5.7%	5.2%	7.3%	5.0%	24.0%	49.6%
Health , Protection, Sanitation	2.6%	0.8%	9.0%	7.4%	3.9%	2.7%	45.8%	27.7%
Health , Protection, Water	1.7%	1.7%	5.4%	3.7%	7.5%	6.4%	24.9%	48.6%
Nutrition, Housing, Information	15.5%	10.8%	16.9%	2.9%	19.6%	7.2%	5.9%	21.1%
Nutrition, Sanitation, Information	23.9%	20.5%	8.5%	5.6%	9.9%	14.9%	3.2%	13.4%
Nutrition, Sanitation, Housing	19.3%	25.1%	7.0%	6.3%	11.4%	14.2%	3.8%	12.8%
Nutrition, Water, Information	14.4%	11.1%	18.0%	2.8%	19.3%	7.5%	6.1%	20.8%
Nutrition, Water, Housing	10.6%	14.9%	15.7%	2.8%	21.6%	7.5%	7.4%	19.5%
Nutrition, Water, Sanitation	18.7%	6.8%	25.7%	6.4%	11.7%	3.9%	14.2%	12.7%
Nutrition, Protection, Information	6.3%	4.0%	26.1%	1.0%	26.4%	2.2%	7.8%	26.1%
Nutrition, Protection, Housing	5.8%	4.5%	20.6%	1.1%	31.9%	2.1%	9.1%	24.9%
Nutrition, Protection, Sanitation	8.1%	2.2%	36.3%	2.0%	16.2%	1.2%	18.5%	15.5%
Nutrition, Protection, Water	4.2%	6.1%	21.2%	1.2%	31.3%	2.0%	9.1%	24.9%
Nutrition, Health , Information	7.2%	4.4%	25.2%	1.4%	26.0%	3.3%	7.5%	25.0%
Nutrition, Health , Housing	5.8%	5.9%	20.5%	1.6%	30.6%	3.1%	8.6%	23.9%
Nutrition, Health , Sanitation	8.9%	2.8%	35.5%	2.8%	15.7%	1.9%	17.8%	14.8%
Nutrition, Health , Water	5.1%	6.5%	20.3%	2.0%	30.8%	2.7%	8.3%	24.2%
Nutrition, Health , Protection	2.7%	9.0%	7.6%	0.7%	43.5%	4.0%	2.5%	30.0%

Table A.2.2. Three-way overlap, 3–7 years

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Sanitation, Housing, Information	12.9%	11.1%	17.7%	4.7%	23.3%	6.1%	6.6%	17.7%
Water, Housing, Information	7.4%	5.4%	10.0%	10.2%	12.9%	11.8%	14.3%	28.0%
Water, Sanitation, Information	13.3%	12.2%	4.1%	17.3%	6.1%	22.2%	7.2%	17.6%
Water, Sanitation, Housing	9.6%	15.9%	3.2%	14.4%	7.1%	25.1%	7.6%	17.2%
Education, Housing, Information	4.1%	2.4%	5.1%	13.5%	5.3%	14.7%	19.2%	35.7%
Education, Sanitation, Information	6.8%	5.2%	2.4%	23.9%	2.5%	29.2%	8.9%	21.2%
Education, Sanitation, Housing	4.7%	7.3%	1.8%	19.3%	3.1%	33.7%	8.9%	21.2%
Education, Water, Information	4.0%	2.9%	5.2%	13.4%	4.8%	15.4%	19.3%	34.9%
Education, Water, Housing	2.9%	3.9%	3.6%	9.9%	6.4%	19.0%	18.4%	35.9%
Education, Water, Sanitation	5.1%	1.7%	6.8%	20.3%	3.2%	8.5%	32.7%	21.6%
Protection, Housing, Information	4.5%	2.4%	4.3%	13.1%	4.6%	14.8%	20.0%	36.4%
Protection, Sanitation, Information	6.8%	4.7%	1.9%	23.8%	2.3%	29.7%	9.4%	21.5%
Protection, Sanitation, Housing	5.1%	6.4%	1.8%	19.0%	2.4%	34.5%	8.9%	21.9%
Protection, Water, Information	4.1%	2.6%	4.6%	13.3%	4.4%	15.8%	19.9%	35.4%
Protection, Water, Housing	2.9%	3.8%	4.0%	9.9%	5.0%	19.1%	18.0%	37.3%
Protection, Water, Sanitation	5.4%	1.3%	6.1%	20.0%	2.9%	9.0%	33.5%	21.8%
Protection, Education, Information	2.5%	1.6%	6.2%	6.7%	5.4%	6.2%	26.5%	45.0%
Protection, Education, Housing	1.9%	2.1%	4.9%	4.6%	6.7%	8.2%	23.3%	48.2%
Protection, Education, Sanitation	3.0%	1.0%	8.5%	8.9%	3.1%	3.9%	44.6%	26.9%
Protection, Education, Water	1.9%	2.2%	4.8%	4.9%	6.8%	7.9%	24.1%	47.4%
Health, Housing, Information	3.4%	2.7%	4.4%	14.2%	4.8%	14.4%	19.9%	36.1%
Health, Sanitation, Information	6.0%	5.4%	1.8%	24.6%	2.2%	29.0%	9.5%	21.5%
Health, Sanitation, Housing	4.6%	6.7%	1.5%	19.4%	2.5%	34.2%	9.2%	21.8%
Health, Water, Information	3.7%	2.7%	4.1%	13.7%	4.8%	15.6%	20.4%	35.0%
Health, Water, Housing	2.6%	3.8%	3.5%	10.1%	5.4%	19.2%	18.5%	36.9%
Health, Water, Sanitation	5.0%	1.4%	6.3%	20.4%	2.6%	8.9%	33.2%	22.2%
Health, Education, Information	1.6%	1.1%	6.3%	7.6%	6.5%	6.7%	26.5%	43.9%
Health, Education, Housing	1.1%	1.5%	5.1%	5.4%	7.7%	8.9%	23.2%	47.2%
Health, Education, Sanitation	2.0%	0.6%	9.4%	10.0%	3.4%	4.3%	43.7%	26.7%
Health, Education, Water	1.2%	1.4%	5.2%	5.7%	7.5%	8.6%	23.6%	46.7%
Health, Protection, Information	2.1%	1.5%	5.7%	6.6%	6.1%	5.5%	27.5%	45.1%
Health, Protection, Housing	1.8%	1.9%	4.4%	5.1%	7.4%	7.0%	23.5%	49.1%
Health, Protection, Sanitation	2.9%	0.7%	8.5%	8.6%	3.3%	3.5%	45.0%	27.5%
Health, Protection, Water	1.9%	1.7%	4.5%	4.7%	7.3%	7.3%	24.5%	48.0%
Health, Protection, Education	0.9%	2.7%	1.7%	3.2%	10.0%	8.9%	11.1%	61.5%

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Nutrition, Housing, Information	15.1%	10.9%	18.8%	2.6%	21.0%	6.3%	5.5%	19.9%
Nutrition, Sanitation, Information	25.7%	21.3%	8.2%	4.9%	10.6%	13.1%	3.1%	13.1%
Nutrition, Sanitation, Housing	18.8%	28.1%	7.1%	5.2%	11.7%	12.8%	3.6%	12.6%
Nutrition, Water, Information	14.7%	11.6%	19.1%	2.7%	20.3%	6.7%	5.4%	19.4%
Nutrition, Water, Housing	10.3%	16.0%	15.6%	2.4%	23.8%	7.0%	6.4%	18.5%
Nutrition, Water, Sanitation	19.7%	6.6%	27.3%	5.8%	12.1%	3.6%	12.2%	12.6%
Nutrition, Education, Information	7.8%	5.1%	26.0%	1.4%	26.8%	2.6%	6.7%	23.6%
Nutrition, Education, Housing	5.4%	7.5%	20.6%	1.1%	32.3%	2.9%	7.7%	22.6%
Nutrition, Education, Sanitation	9.7%	3.2%	37.3%	2.3%	15.5%	1.7%	15.7%	14.6%
Nutrition, Education, Water	5.5%	7.4%	20.8%	1.4%	32.0%	2.6%	8.0%	22.2%
Nutrition, Protection, Information	7.8%	4.7%	26.0%	0.9%	27.2%	2.2%	7.2%	23.9%
Nutrition, Protection, Housing,	5.9%	6.6%	20.0%	0.9%	33.2%	2.2%	7.9%	23.2%
Nutrition, Protection, Sanitation	9.6%	2.9%	37.3%	1.8%	15.9%	1.3%	16.2%	14.9%
Nutrition, Protection, Water	5.7%	6.8%	20.6%	1.0%	32.6%	2.1%	8.4%	22.7%
Nutrition, Protection, Education	3.6%	9.0%	9.3%	0.5%	43.9%	2.6%	3.5%	27.6%
Nutrition, Health, Information	6.6%	4.9%	27.2%	1.2%	27.0%	2.7%	6.8%	23.5%
Nutrition, Health, Housing	4.9%	6.6%	21.1%	1.3%	33.2%	2.6%	7.5%	22.8%
Nutrition, Health, Sanitation	9.1%	2.4%	37.9%	2.3%	16.4%	1.6%	15.7%	14.6%
Nutrition, Health, Water	5.2%	6.3%	21.1%	1.3%	33.1%	2.6%	8.1%	22.2%
Nutrition, Health, Education	2.1%	9.4%	10.8%	0.5%	43.5%	3.4%	3.5%	26.9%
Nutrition, Health, Protection	3.1%	8.4%	9.4%	0.5%	44.9%	3.4%	2.6%	27.7%

Table A.2.3.: Three-way overlap, 8–13 years

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Sanitation, Housing, Information	11.4%	10.1%	17.9%	4.0%	24.5%	6.1%	7.0%	19.0%
Water, Housing, Information	6.7%	4.9%	10.1%	8.6%	14.4%	11.3%	14.7%	29.1%
Water, Sanitation, Information	12.8%	12.7%	4.0%	16.4%	6.6%	21.9%	7.0%	18.5%
Water, Sanitation, Housing	8.7%	16.8%	2.9%	12.7%	7.7%	25.6%	7.2%	18.3%
Education, Housing, Information	6.9%	4.5%	8.3%	8.5%	9.6%	11.7%	16.5%	34.0%
Education, Sanitation, Information	11.3%	8.9%	3.9%	17.9%	5.2%	25.7%	7.1%	20.0%
Education, Sanitation, Housing	7.8%	12.4%	3.6%	13.6%	5.5%	30.0%	6.6%	20.5%
Education, Water, Information	6.7%	5.3%	8.5%	10.1%	8.7%	14.0%	14.9%	31.7%
Education, Water, Housing	4.8%	7.2%	6.6%	6.8%	10.6%	17.3%	13.4%	33.2%
Education, Water, Sanitation	9.0%	3.1%	11.2%	16.6%	6.0%	7.6%	27.1%	19.5%
Protection, Housing, Information	5.5%	4.2%	7.8%	9.9%	9.9%	12.0%	17.1%	33.6%
Protection, Sanitation, Information	9.8%	9.6%	3.5%	19.4%	4.6%	25.0%	7.5%	20.6%
Protection, Sanitation, Housing	7.0%	12.4%	2.7%	14.5%	5.3%	30.0%	7.4%	20.7%
Protection, Water, Information	6.0%	5.3%	7.3%	10.9%	8.8%	14.0%	16.1%	31.6%
Protection, Water, Housing	4.1%	7.2%	5.6%	7.6%	10.5%	17.3%	14.3%	33.3%
Protection, Water, Sanitation	8.7%	2.6%	10.7%	16.8%	5.4%	8.1%	27.6%	20.1%
Protection, Education, Information	6.9%	5.4%	6.4%	8.3%	8.8%	8.7%	18.7%	36.9%
Protection, Education, Housing	5.0%	7.3%	4.7%	6.4%	10.5%	10.6%	15.5%	40.0%
Protection, Education, Sanitation	8.9%	3.4%	10.5%	11.3%	4.7%	5.7%	33.1%	22.4%
Protection, Education, Water	5.4%	6.8%	5.9%	6.6%	9.3%	10.4%	18.3%	37.3%
Health, Housing, Information	3.3%	2.6%	5.0%	12.1%	5.1%	13.6%	19.9%	38.4%
Health, Sanitation, Information	6.4%	5.4%	1.9%	22.8%	2.4%	29.2%	9.1%	22.8%
Health, Sanitation, Housing	4.5%	7.3%	1.4%	16.9%	2.8%	35.1%	8.8%	23.2%
Health, Water, Information	4.0%	3.2%	4.2%	12.8%	4.6%	16.1%	19.2%	35.9%
Health, Water, Housing	2.9%	4.4%	3.1%	8.8%	5.7%	20.1%	16.9%	38.1%
Health, Water, Sanitation	5.6%	1.6%	6.2%	19.9%	2.6%	9.0%	32.1%	22.9%
Health, Education, Information	3.9%	2.7%	4.4%	11.3%	5.1%	11.4%	20.7%	40.6%
Health, Education, Housing	2.9%	3.7%	3.0%	8.5%	6.4%	14.2%	17.2%	44.1%
Health, Education, Sanitation	4.8%	1.8%	7.0%	15.4%	2.4%	7.2%	36.6%	24.7%
Health, Education, Water	3.3%	3.3%	4.0%	8.7%	5.5%	13.9%	20.2%	41.1%
Health, Protection, Information	3.5%	2.7%	4.8%	9.8%	5.1%	11.5%	22.2%	40.5%
Health, Protection, Housing	2.5%	3.7%	3.4%	7.2%	6.5%	14.0%	18.5%	44.2%
Health, Protection, Sanitation	4.6%	1.6%	7.3%	14.8%	2.6%	6.5%	37.2%	25.5%
Health, Protection, Water	3.1%	3.0%	4.1%	8.2%	5.8%	13.1%	20.8%	41.9%
Health, Protection, Education	3.6%	2.5%	3.0%	8.6%	6.9%	12.6%	14.0%	48.7%

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Nutrition, Housing, Information	13.4%	10.5%	19.3%	2.0%	22.7%	5.8%	5.6%	20.9%
Nutrition, Sanitation, Information	24.6%	21.4%	8.1%	4.7%	11.7%	13.1%	2.9%	13.5%
Nutrition, Sanitation, Housing	17.3%	28.8%	6.6%	4.2%	13.2%	13.6%	3.6%	12.8%
Nutrition, Water, Information	14.2%	11.8%	18.5%	2.6%	21.3%	7.5%	4.9%	19.1%
Nutrition, Water, Housing	9.5%	16.5%	14.4%	2.2%	25.4%	8.0%	5.6%	18.5%
Nutrition, Water, Sanitation	19.4%	6.6%	26.6%	6.1%	13.1%	4.1%	11.7%	12.4%
Nutrition, Education, Information	13.4%	9.2%	19.3%	1.8%	23.9%	4.9%	5.7%	21.8%
Nutrition, Education, Housing	9.6%	12.9%	14.2%	1.7%	29.0%	4.9%	6.0%	21.5%
Nutrition, Education, Sanitation	16.5%	6.1%	29.6%	3.7%	13.7%	3.0%	14.1%	13.5%
Nutrition, Education, Water	9.6%	13.0%	16.4%	2.4%	26.8%	4.3%	7.7%	19.8%
Nutrition, Protection, Information	11.7%	8.8%	20.9%	1.5%	24.3%	5.3%	6.0%	21.3%
Nutrition, Protection, Housing	7.9%	12.7%	16.0%	1.8%	29.3%	5.0%	5.9%	21.4%
Nutrition, Protection, Sanitation	15.3%	5.2%	30.7%	4.1%	14.5%	2.8%	13.7%	13.6%
Nutrition, Protection, Water	9.1%	11.5%	16.9%	2.2%	28.3%	4.6%	7.9%	19.4%
Nutrition, Protection, Education	9.9%	10.6%	12.7%	2.3%	32.6%	4.5%	4.4%	23.0%
Nutrition, Health, Information	7.2%	5.1%	25.5%	1.1%	28.0%	2.7%	6.5%	23.9%
Nutrition, Health, Housing	4.7%	7.6%	19.2%	1.2%	34.3%	2.5%	6.5%	23.9%
Nutrition, Health, Sanitation	9.4%	2.8%	36.6%	2.4%	16.9%	1.4%	15.4%	15.0%
Nutrition, Health, Water	5.8%	6.5%	20.2%	1.5%	33.3%	2.3%	8.7%	21.7%
Nutrition, Health, Education	5.4%	6.9%	17.1%	1.2%	36.4%	2.6%	5.5%	24.9%
Nutrition, Health, Protection	5.2%	7.1%	15.4%	1.0%	38.1%	2.8%	5.9%	24.6%

Table A.2.4. Three-way overlap, 14–17 years

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Sanitation, Housing, Information	8.6%	9.2%	17.3%	3.2%	26.6%	5.9%	6.9%	22.3%
Water, Housing, Information	4.8%	4.3%	9.8%	7.0%	14.6%	10.8%	14.4%	34.3%
Water, Sanitation, Information	10.8%	12.5%	3.8%	15.0%	6.4%	23.3%	6.4%	21.8%
Water, Sanitation, Housing	6.6%	16.6%	2.4%	11.1%	7.8%	27.3%	6.7%	21.4%
Education, Housing, Information	6.4%	5.3%	10.7%	5.4%	17.2%	9.8%	13.5%	31.7%
Education, Sanitation, Information	12.7%	13.6%	4.4%	13.2%	8.9%	22.2%	5.7%	19.3%
Education, Sanitation, Housing	8.3%	18.0%	3.4%	9.4%	9.9%	25.9%	5.8%	19.3%
Education, Water, Information	7.3%	7.5%	9.8%	7.3%	14.9%	11.4%	11.6%	30.2%
Education, Water, Housing	4.6%	10.2%	7.0%	4.4%	17.7%	14.3%	10.8%	30.9%
Education, Water, Sanitation	10.7%	4.1%	15.5%	12.5%	9.2%	6.2%	22.8%	18.9%
Protection, Housing, Information	6.5%	7.0%	13.3%	5.3%	22.3%	8.1%	10.9%	26.6%
Protection, Sanitation, Information	14.2%	18.0%	5.7%	11.6%	11.3%	17.8%	4.5%	16.9%
Protection, Sanitation, Housing	9.3%	22.9%	4.2%	8.4%	12.8%	21.0%	5.0%	16.4%
Protection, Water, Information	8.7%	9.9%	11.2%	5.9%	19.5%	9.0%	10.2%	25.7%
Protection, Water, Housing	5.1%	13.4%	8.4%	3.9%	22.3%	11.0%	9.5%	26.4%
Protection, Water, Sanitation	13.5%	5.1%	18.7%	9.8%	11.9%	5.1%	19.7%	16.2%
Protection, Education, Information	13.6%	17.8%	6.2%	3.5%	11.5%	4.6%	12.7%	30.0%
Protection, Education, Housing	9.0%	22.4%	4.5%	2.6%	13.2%	5.5%	10.7%	32.0%
Protection, Education, Sanitation	20.7%	10.8%	11.5%	5.6%	6.2%	2.5%	23.9%	18.9%
Protection, Education, Water	12.3%	19.2%	6.3%	2.5%	11.4%	5.6%	12.4%	30.3%
Health, Housing, Information	2.6%	2.7%	4.6%	9.2%	7.2%	12.4%	19.6%	41.7%
Health, Sanitation, Information	5.1%	6.5%	2.1%	20.8%	3.4%	29.2%	8.1%	24.8%
Health, Sanitation, Housing	3.8%	7.8%	1.5%	13.9%	4.0%	36.1%	7.7%	25.2%
Health, Water, Information	3.1%	3.4%	4.1%	11.5%	6.5%	15.5%	17.3%	38.6%
Health, Water, Housing	2.3%	4.2%	3.0%	6.8%	7.6%	20.2%	14.8%	41.1%
Health, Water, Sanitation	4.9%	1.6%	6.7%	18.3%	3.9%	8.6%	31.7%	24.3%
Health, Education, Information	4.1%	4.3%	3.1%	13.0%	5.6%	18.1%	15.8%	36.0%
Health, Education, Housing	2.9%	5.6%	2.5%	8.8%	6.2%	22.3%	12.8%	39.0%
Health, Education, Sanitation	5.8%	2.6%	5.8%	20.4%	2.9%	10.7%	29.6%	22.2%
Health, Education, Water	3.6%	4.8%	2.9%	11.2%	5.8%	19.9%	15.8%	36.0%
Health, Protection, Information	4.9%	5.3%	2.2%	14.9%	4.6%	24.0%	13.9%	30.0%
Health, Protection, Housing	3.3%	6.9%	2.0%	10.2%	4.9%	28.7%	11.3%	32.6%
Health, Protection, Sanitation	7.3%	2.9%	4.3%	24.9%	2.6%	14.1%	25.1%	18.8%
Health, Protection, Water	4.3%	5.9%	2.2%	14.3%	4.7%	24.7%	12.7%	31.2%
Health, Protection, Education	6.9%	3.3%	1.5%	24.5%	5.4%	14.4%	6.6%	37.4%

Combination of three dimensions	Overlap between all dimensions	Overlap between first two dimensions	Overlap between first and third dimensions	Overlap between second and third dimensions	Deprivation in only first dimension	Deprivation in only second dimension	Deprivation in only third dimension	Deprived in none of the three dimensions
Nutrition, Housing, Information	9.8%	8.6%	18.4%	2.0%	24.4%	6.5%	5.8%	24.5%
Nutrition, Sanitation, Information	21.3%	20.8%	6.8%	4.5%	12.2%	15.0%	3.3%	16.0%
Nutrition, Sanitation, Housing	13.1%	29.0%	5.3%	4.6%	13.8%	14.9%	3.9%	15.4%
Nutrition, Water, Information	11.7%	11.6%	16.4%	2.9%	21.4%	7.3%	5.0%	23.7%
Nutrition, Water, Housing	6.9%	16.4%	11.5%	2.2%	26.4%	8.0%	6.4%	22.3%
Nutrition, Water, Sanitation	17.2%	6.1%	24.9%	6.1%	12.9%	4.1%	13.5%	15.2%
Nutrition, Education, Information	13.7%	12.5%	14.4%	3.4%	20.5%	9.9%	4.5%	21.1%
Nutrition, Education, Housing	8.8%	17.5%	9.6%	2.9%	25.3%	10.4%	5.6%	20.0%
Nutrition, Education, Sanitation	18.9%	7.4%	23.2%	7.4%	11.7%	5.9%	12.2%	13.4%
Nutrition, Education, Water	10.9%	15.3%	12.4%	3.9%	22.5%	9.4%	6.3%	19.3%
Nutrition, Protection, Information	15.8%	16.3%	12.4%	4.1%	16.7%	13.0%	3.8%	18.0%
Nutrition, Protection, Housing	9.7%	22.4%	8.6%	3.8%	20.4%	13.3%	4.7%	17.0%
Nutrition, Protection, Sanitation	22.7%	9.4%	19.4%	9.5%	9.7%	7.6%	10.1%	11.7%
Nutrition, Protection, Water	13.6%	18.5%	9.8%	5.0%	19.3%	12.1%	5.1%	16.6%
Nutrition, Protection, Education	20.7%	11.4%	5.6%	10.8%	23.4%	6.3%	2.5%	19.3%
Nutrition, Health, Information	6.1%	5.7%	22.0%	1.1%	27.3%	4.2%	6.8%	26.8%
Nutrition, Health, Housing	3.9%	7.9%	14.5%	1.4%	34.9%	3.9%	7.1%	26.5%
Nutrition, Health, Sanitation	8.9%	2.9%	33.2%	2.7%	16.1%	2.6%	16.8%	16.8%
Nutrition, Health, Water	5.0%	6.8%	18.4%	1.5%	31.0%	3.8%	8.6%	24.9%
Nutrition, Health, Education	6.2%	5.6%	20.1%	2.3%	29.2%	3.0%	11.0%	22.5%
Nutrition, Health, Protection	7.2%	4.6%	24.9%	3.0%	24.5%	2.3%	14.1%	19.5%

MULTIDIMENSIONAL POVERTY IN BURUNDI IS HIGHER THAN MONETARY POVERTY.

The analysis of child poverty in Burundi provides different results. Using the national poverty line of 636,510 Burundian Franc (BIF) per year per adult equivalent results in a child poverty rate of 69 %[20] while with the multidimensional approach, the child poverty rate is 78.2%. However, using the non-monetary approach to measure child well-being provides a more complete picture of poverty.[21]

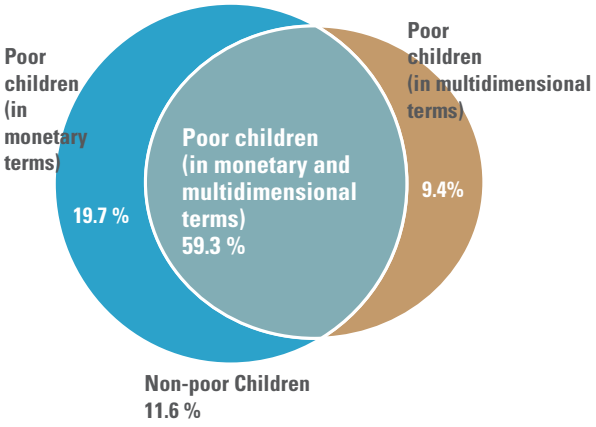
THE OVERLAP[22] BETWEEN MONETARY AND MULTIDIMENSIONAL POVERTY.

There is a large overlap between monetary and non-monetary poverty in Burundi (see Figure 2). Indeed, 59.3% of children aged 0 to 17 are poor both financially and non-monetarily (multi-dimensional), while only 11.6% of children are defined as not poor. The overlap between the two concepts of poverty, however, is not complete.

The following two observations are particularly interesting:

- Multidimensional poverty also affects children living in non-monetarily poor households in Burundi. 19.7% of children living in a non-poor household (earning at least 610,536 BIF per adult equivalent per year) are multi-dimensional poor (i.e., they suffer from deprivation in at least 3 dimensions among the 7 child well-being dimensions analysed in this study).
- There are also children (9.4%) who live in households with less than 610,536 BIF per equivalent adult per year but who are not multi-dimensional poor.

A.2 : The overlap between monetary and multidimensional poverty,[23] in %



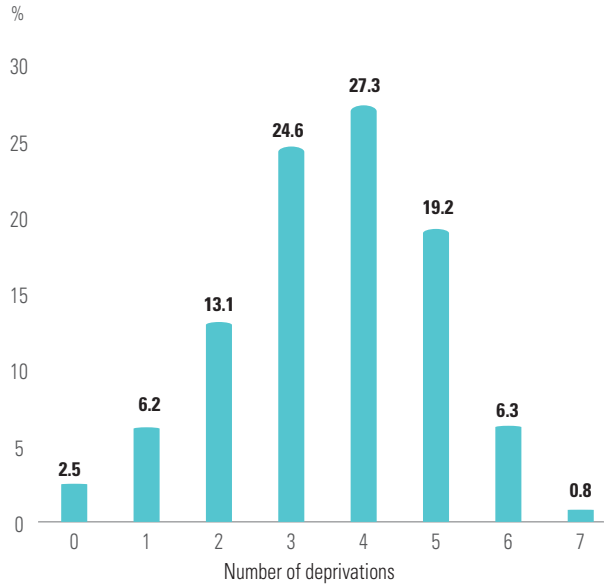
20 Note that income poverty among children is higher than among the general population (69% vs. 64.6%)).
21 The reasons why the non-monetary approach provides a more complete picture of child poverty are detailed in the report.
22 Overlap is the state of two things, one of which overlaps in part with the other. The term "overlap" is used several times in this study and is central to the MODA methodology. Monetary and non-monetary poverty overlap. Also, deprivations in the child's well-being dimensions often overlap (are experienced simultaneously). In other words, the same child is deprived of several dimensions of well-being at once.
23 Multidimensional poverty of children in Burundi stands at 78.2%. In Figure 2, the poverty rate is 79% (19.7% +59.3%) due to missing values, or 3.5% of the observations, in the database for poverty. By eliminating these missing values for the analysis of the overlap between monetary and non-monetary poverty, the exchange rate changes slightly from 78.2% to 79%. It should be noted that 78.2% is the child poverty rate in Burundi and it is this rate that will be used to measure target 1.1.2 of the Sustainable Development Goal 1 in Burundi.

THE MULTIDIMENSIONAL APPROACH TO CHILD POVERTY MAKES MORE SENSE THAN THE UNI-SECTORAL APPROACH IN THE BURUNDIAN CONTEXT.

A small proportion of children, 6.2%, are deprived in only one dimension of their well-being (see Figure 3). The majority of them suffer from several deprivations at once. In Burundi, the development of policies in each dimension of child well-being is under the mandate of one or more specialized institutions. Each institution conducts sectoral research and, based on this research, develops policy.
In adopting this approach, an important element goes unnoticed: the fact that it is the same child who is deprived in several dimensions of well-being.

The alignment of sectoral policies will not only lead to economies of scale and reduced administrative costs, but also to a better targeting of the most deprived children, i.e. those who are deprived in several dimensions of their well-being simultaneously.
For example, the overlap of deprivation in the Health, Water and Housing dimensions is 32.7%. In other words, one third of children aged 0 to 4 are simultaneously deprived in these three dimensions.
Given the intensity of overlap, coherent policies would be more effective in addressing the three issues at the same time.

A.3 : Proportion of children by number of simultaneous deprivations, % deprived children



MEASURING TARGETS 1.1 & 1.2 OF THE SUSTAINABLE DEVELOPMENT GOAL 1 (SDG) IN THE CONTEXT OF BURUNDI.

One of the main objectives of this study is to define the baseline for SDG 1 targets 1.1 and 1.2 created in 2015[25]. The 2 components of SDG 1 are listed in Figure 4. In this study, poverty rates are calculated only for children and this can be used as a reference for the SDGs.
The first goal (SDG 1.1) for Burundi is to reduce the percentage of children living on less than $1.25 a day from 74% to 0%. The second goal (SDG 1.2) is to reduce non-monetary child poverty (from 78.2% to 39.1%) by at least half by 2030.

A.4: Sustainable Development Goals 1.1 & 1.2

Objective 1:
Eliminate poverty in all its forms everywhere

Objective 1.1: By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.

Objective 1.2: By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

VERY FEW CHILDREN ARE DEPRIVED IN A SINGLE DIMENSION, MOST OF THEM SUFFER FROM MULTIPLE DEPRIVATIONS.

Based on the results obtained in this study, only 2.5% of children under 18 face no deprivation in Burundi (see Figure 3)[26].
This means that 97.5% of children have at least one deprivation out of the seven dimensions of well-being analysed. It should be noted that 91.3% of children are deprived in two deprivations while 78.2% face three or more deprivations.

These numbers are very alarming[27]. From a social and moral point of view, it is imperative to focus on the most vulnerable children, especially those who are deprived in 3 or more dimensions. Multiple deprivations during childhood (and even adolescence) can have irreversible effects on the productivity and social integration of these future adults.
Reducing poverty among children will thus certainly contribute to economic growth. It will also increase the country's productivity and consolidate peace and social cohesion for a better Burundi in the future.

REFERENCE RATES FOR SDGs 1.1 AND 1.2 FOR BURUNDIAN CHILDREN (DATA SOURCE: ECVMB 2019-2020)

			2019	2030
SDG	Description of the measure	Poverty threshold	Poverty rate (Reference rate)	Poverty rate (target to achieve)
SDG 1.1	Percentage of children living on less than $1.25 per day	1,25 $ per day	79.07%	0 %
SDG 1.2	The percentage of children living in poverty in all its aspects, as defined in Burundi (see section 3.2).	Deprived in at least 3 out of 7 dimensions of well-being analysed *.	64 %	39.1 %

Note: (*) See Figure 1 for the seven dimensions of well-being by age of child

25 Recall that the achievement of the SDGs is set in the period from 2015 to 2030.
26 Most of these children live in urban areas, especially in Bujumbura Mairie.
27 In other countries in Sub-Saharan Africa (notably Botswana, Zimbabwe, Côte D'Ivoire, Rwanda, Tanzania, Democratic Republic of Congo, Togo, Kenya, and Cameroon) where the MODA analysis was conducted, it was also noted that poor children suffer from several deprivations at once. What is particularly alarming in Burundi is the high proportion of children, 78.2%, who experience at least 3 deprivations simultaneously. With more than three quarters of Burundian children suffering at least 3 deprivations, it is more difficult to fight child poverty.

THE "HOUSING" DIMENSION REPORTS THE HIGHEST PROPORTION OF DEPRIVED CHILDREN.

The results obtained show that a very high proportion of children are deprived in the "Housing" dimension, for all age groups. This situation is mainly driven by the "Cooking Fuels" indicator. Indeed, this indicator shows that about 80% of children live in households that use unimproved fuels[28].

Disaggregating the results by province, we observe that with the exception of Bujumbura Mairie, all other provinces have deprivation rates as high as 70-98% for this indicator.

As respiratory infections are one of the main causes of mortality and morbidity among children in Burundi[29], appropriate campaigns are crucial to raise awareness about the side effects of certain fuels.

A SHARP URBAN/RURAL DIVIDE.

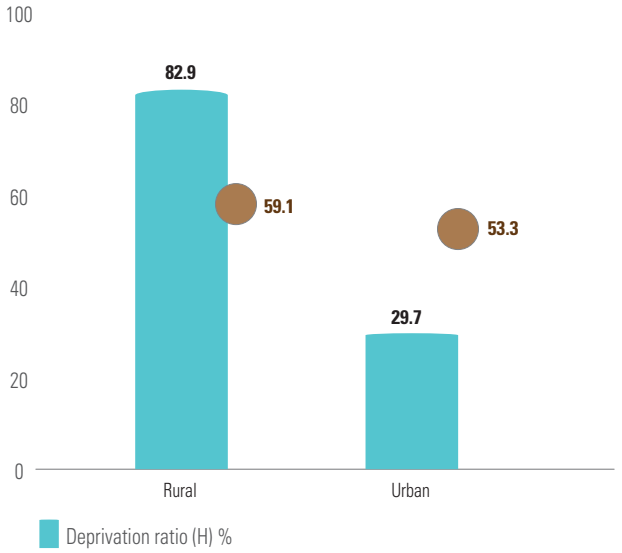
The results of our analysis show that uni-sectoral and multidimensional deprivation rates are significantly higher in rural areas.

Figure A.5 shows a higher rate of deprivation in rural areas (82.9%) than in urban areas (29.7%).

While deprived children in urban areas are, on average, deprived by 53.3% of the total number of dimensions, deprived children in rural areas are, on average, deprived by 59.1% of the total number of dimensions.

In other words, the intensity of deprivation is even greater for deprived children in rural areas[30].

A.5 : Deprivation indices (K=3), children aged between 0-17 years olds, deprivation rate (H) en %

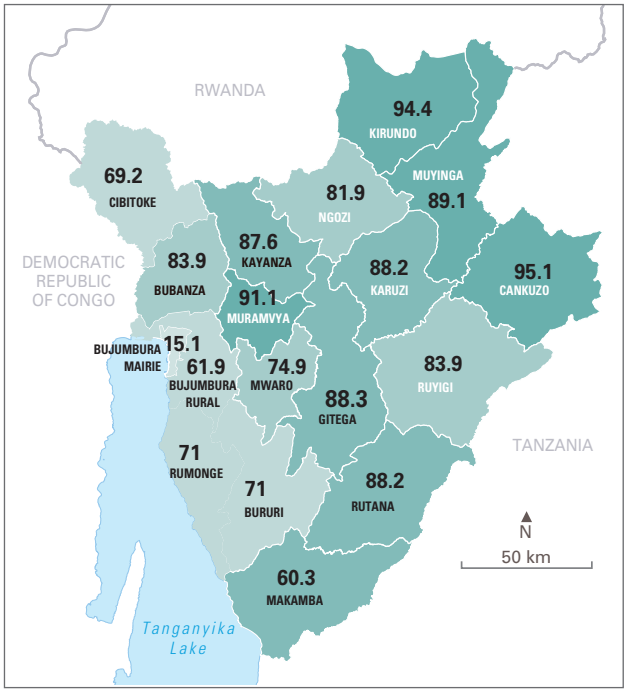


SIGNIFICANT REGIONAL DISPARITIES [31].

Significant regional disparities. The results of this study can support the implementation of programs that would target the poorest children. Indeed, Figure A.
6 highlights the geographic location of poor children in a multi-dimensional way. The darker colors show the highest poverty rates.

Compared to other provinces, Bujumbura Mairie is better off with the lowest poverty rate (H), 15.1%, and with an average intensity of deprivation of 48.7% (A). Cakunzo province has the highest proportion of poor children (95.1%) and the highest average intensity of deprivation (64.4%).

A.6: Multidimensional poverty (K=3), children aged between 0-17 years old



28 See definition of unimproved fuels in the table in Appendix A.1

29 UNICEF (online). Problems facing children in Burundi. Available on the website: http://www.unicef.org/french/infobycountry/burundi_2774.html

30 A study on child poverty conducted on the PMS 2012 showed that urban child poverty increased between 2006 and 2012, rural poverty (much higher) decreased. Analyses on child poverty using the same dimensions and indicators of well-being, based on the MODA methodology, to be done on the new databases will allow, to see the evolution of poverty in urban and rural areas.

31 The 2013-2014 ECVMB data used for this study were collected before the creation of the new province of Rumonge. For this reason, the map in Figure 7 shows 17 provinces instead of 18.

PROFILES OF MULTI-DIMENSIONALLY POOR CHILDREN.

In addition to geographic location, the profile of vulnerable children was also studied on the basis of the socio-economic characteristics of their households. We note that the rate of deprivation is significantly reduced with a higher level of education/training of the head of the household. However, we observe a very small difference in the child deprivation rate between households whose household head has no "education/training" and those whose household head has primary education. The lack of marginal gain between a household head with no education and those who have completed primary school raises questions about the content of the primary school curriculum and, hence, the quality of education.

Moreover, the poverty analysis shows a positive correlation between household size and the income poverty rate, a result that confirms the numerous studies conducted in other African countries[32]. Nevertheless, we observe an unexpected result with respect to the correlation between multidimensional poverty and household size: as household size increases, multidimensional child poverty decreases.
This decrease could be explained by an economy of scale in the use of key basic social services. In other Sub-Saharan African countries, it has often been observed that households with fewer members spend less money on the construction of toilets, the purchase of radios, televisions, cell phones, among other things. This explains why non-monetary poverty is very high among households with few members. More research needs to be undertaken in the case of Burundi to understand this higher occurrence of non-monetary poverty in households with fewer members.

DEPRIVATION RATES ARE VERY HIGH REGARDLESS OF THE GENDER OF THE HOUSEHOLD HEAD[33].

Nevertheless, we observe a lower rate of deprivation when the head of the household is a man.
Often households with a female head of household (widows, singles, etc.) are poorer in Burundi and therefore their children experience more deprivation.
One reason for this is that women have lower incomes than men and therefore cannot make ends meet.
Further analysis is needed to understand more about the reasons for this situation, but at first glance it seems that in Burundi, women are often at a disadvantage compared to men.
For example, inheritance rights are not the same for women and men, and widows often lose the land of their deceased husbands, making it impossible for them to care for their children..

A very large proportion of children (92.7%) in the poorest income poverty quintile are multidimensionally deprived. On the other hand, it is interesting to note that more than half (54.4%) of children in the richest quintile are multidimensionally deprived.
The analysis of non-monetary poverty by decile also yields similar results where 95.2% of children in the poorest decile are multidimensionally deprived while 43.4% of the richest decile are multidimensionally deprived.

A deprivation analysis between girls and boys was also done. The results show that there does not appear to be gender inequality among children. Girls and boys are almost equally poor in the multidimensional poverty indicators used in this study

32 INSBU et al (2015). « Burundi: Profil et Déterminant de la Pauvreté. Rapport de l'enquête modulaire sur les conditions de vie des ménages 2013/2014 », Edited by Institut National de la Statistique du Burundi (INSBU).
33 Female-headed households have a child poverty rate of 82.2%, while male-headed households have a rate of 77.3%

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