ISSN 2752-8189 (online)
ISSN 2752-8170 (print)

IsDBI–OPHI BRIEFS

No. 1
October 2021

EXPLORING MULTIDIMENSIONAL POVERTY ACROSS IsDB MEMBER COUNTRIES USING THE GLOBAL MPI

Islamic Development Bank Institute
Oxford Poverty and Human Development Initiative

معهد البنك الإسلامي للتنمية
Islamic Development Bank Institute

OPHI
Oxford Poverty & Human Development Initiative

UNIVERSITY OF OXFORD

IsDBI–OPHI Briefs, No. 1
Exploring multidimensional poverty across IsDB Member Countries using the global MPI

ISSN 2752-8189 (online)
ISSN 2752-8170 (print)

Islamic Development Bank Institute (IsDBI)
Oxford Poverty and Human Development Initiative (OPHI)

Citation: OPHI and IsDBI (2021). ***Exploring multidimensional poverty across IsDB Member Countries using the global MPI,*** IsDBI–OPHI Briefs, No. 1, Oxford Poverty and Human Development Initiative (OPHI) and IsDBI (Islamic Development Bank Institute), Oxford, UK.

This report is published under Creative Commons licence CC BY-NC-ND.

Exploring Multidimensional Poverty across IsDB Member Countries using the Global MPI

IsDBI–OPHI Brief No. 1

October 2021

ACKNOWLEDGEMENTS

These poverty briefs were jointly prepared by the Islamic Development Bank Institute (IsDBI) and the Oxford Poverty and Human Development Initiative (OPHI) under the strategic guidance and direction of the Sami Al-Suwailem (Acting Director General, IsDBI/Chief Economist) and Sabina Alkire (Director, OPHI).

The team comprised of Areef Suleman (Director Economic Research and Statistics, IsDBI), Bukhari M.S. Sillah (Senior Research Economist, IsDBI), Corinne Mitchell (Director of Programmes and Operations, OPHI), Sophie Scharlin-Pettee (Policy Officer, OPHI) and Ross Jennings, (Research Officer, OPHI). The contributions of Habeeb Idris Pindiga (Lead Specialist/Team Leader, Knowledge Horizons, IsDBI), Maarit Kivilo (Designer, OPHI), Maya Evans (Research Communications Officer, OPHI), Aziza A. Zarei (Internal Communication Officer, IsDBI) and Abdul Rashid (IsDBI) for design and technical support are highly appreciated.

FOREWORD

The COVID-19 pandemic has reversed the gains made in the fight against poverty, battering both lives and livelihoods, and leading to millions of people across the world falling back into poverty. Lockdowns and other interventions have brought about a global economic standstill, resulting in job and income losses, particularly among people living in poverty, many of whom are informally employed in vulnerable sectors. As economic activities recover, we face a widening inequality gap in a post-COVID-19 world.

Given that one in three people in Islamic Development Bank (IsDB) Member Countries tend to live in multidimensional poverty, fighting poverty has been and will always be at the core of the strategies and policies of IsDB.

The COVID-19 pandemic has further compelled us as a development institution to strengthen our efforts to ensure a more inclusive recovery in our Member Countries. At IsDB, we believe it is imperative that nobody is left behind. Our emphasis on inclusive growth is embedded in our response to COVID-19, the IsDB Group Strategic Preparedness and Response Programme (SPRP), which focuses on '3 Rs' – Respond, Restore, and Restart. The SPRP has been developed in line with the IsDB's President's Five-year Program (P5P), which aims to make us more proactively engage with Member Countries through 'better understanding their unique development challenges, stimulating the private sector, and making markets work for development' to provide the much-needed impetus to foster sustainable and inclusive growth.

The path towards post-pandemic inclusive recovery must start with an understanding of the lived experiences of poor people. Together with the Oxford Poverty and Human Development Initiative (OPHI), we are publishing a series of briefs that go beyond assessing poverty through a monetary lens to offer a more comprehensive story of the different deprivations of people living in poverty in our Member Countries. By providing data-driven evidence, these briefs can contribute towards the formulation of well-targeted interventions and efficient mobilization of resources to have a larger impact on the lives of poor people.

We have less than a decade to achieve the Sustainable Development Goals (SDGs), but economic recovery remains mired with uncertainties. At this crossroads, we have an opportunity to make a difference in the trajectory of poverty reduction and help end poverty in all its forms and dimensions. Further reversals in the global fight against poverty can be prevented through evidence-based, innovative solutions centred on creating an equal society for all. We can forge a new path and create a better world.

Let us act collectively and be relentless in our pursuit of uplifting the everyday lives of poor people.

Dr Bandar M.H. Hajjar
Chairman, Islamic Development Bank Group

PREFACE

Poverty is conventionally measured in terms of income, with people often considered poor if their incomes fall below a certain monetary threshold. However, poverty comes in many forms. People living in poverty are often deprived in various non-monetary dimensions, from health, education, access to basic utilities, ownership of assets, to housing.

Therefore, uplifting the lives of poor people in our Member Countries while protecting them from current and future crises requires a more holistic perspective of poverty – one that addresses the different deprivations that people can face. Such an undertaking will enhance poverty-related interventions by multilateral institutions, including the Islamic Development Bank (IsDB) Group.

It is with this in mind that the IsDB Institute rekindled its partnership with the Oxford Poverty and Human Development Initiative (OPHI). IsDB and OPHI have collaborated since 2013 in a number of areas, most recently in 2016 on the Multidimensional Poverty Assessment in IsDB Sub-Saharan African Member Countries. We are building on the success of our previous collaborations to help strengthen IsDB Group's evidence-based policies and interventions in our Member Countries.

As part of this collaboration, the IsDB Institute and OPHI are publishing a series of briefs exploring different dimensions related to multidimensional poverty in IsDB Member Countries. This brief moves away from standard income poverty assessments and explores multidimensional poverty in 42 IsDB Member Countries for which data are available. It brings to light multidimensional poverty as experienced at the national and subnational levels, providing a basis by which IsDB country programmes and government policies can be crafted. The brief highlights the nuances of countries' multidimensional poverty situations through a systematic analytical framework, bringing out, for example, variations across sub-regions, between urban and rural populations, and across age groups.

This brief also tracks and highlights success stories, such as in Bangladesh, Gambia, Mauritania, and Sierra Leone, which made exemplary progress in reducing multidimensional poverty. Doing so serves as a motivation for policymakers and development institutions that reducing poverty remains possible, despite high initial levels of poverty and other challenges.

We hope that this brief provides insights into how and where we, in the development community, should focus our efforts towards achieving a more inclusive and balanced post-COVID-19 world.

Together, we can build a better future.

Dr Sami Al-Suwailem

Acting Director General, IsDB Institute
and Chief Economist, IsDB Group

Dr Sabina Alkire

Director, Oxford Poverty and Human Development
Initiative (OPHI)

TABLE OF CONTENTS

FOREWORD IV

PREFACE V

INTRODUCTION 1

1. KEY FINDINGS ON MULTIDIMENSIONAL POVERTY 3
   1.1 COUNTRY PERFORMANCES: KEY NATIONAL STATISTICS 3
   1.2 COUNTRY PERFORMANCES: SUBNATIONAL STATISTICS 9
   1.3 COUNTRY PERFORMANCES: URBAN-RURAL STATISTICS 10
   1.4 COUNTRY PERFORMANCES: AGE GROUP STATISTICS 12

2. MULTIDIMENSIONAL POVERTY REDUCTION OVER TIME 15
   2.1 COUNTRY PERFORMANCES: POVERTY REDUCTIONS 15
   2.2 COUNTRY PERFORMANCES: REDUCTIONS IN INCIDENCE AND INTENSITY 18
   2.3 COUNTRY PERFORMANCES: REDUCTIONS BY INDICATOR 21
   2.4 POPULATION GROWTH AND THE NUMBER OF PEOPLE LIVING IN POVERTY 23
   2.5 COMPARING MULTIDIMENSIONAL AND MONETARY POVERTY 24
   2.6 GROWTH IN GNI PER CAPITA AND POVERTY REDUCTION 24

3. COVID-19 AND MULTIDIMENSIONAL POVERTY 27
   3.1 THE RISK PROFILE OF ISDB MEMBER COUNTRIES 27

4. CONCLUDING REMARKS 32

ENDNOTES 34

REFERENCES 36

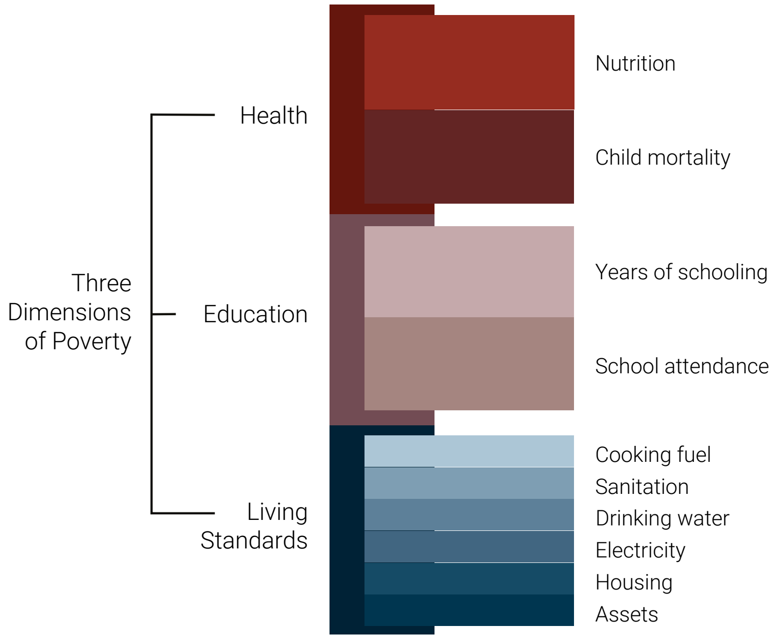
INTRODUCTION

The ongoing COVID-19 pandemic has changed people's lives in diverse and unexpected ways. The global progress in poverty reduction in the last two decades must be reassessed now that the COVID-19 crisis has put many of these gains at stake. To salvage these gains, policymakers must invest in targeted, evidence-driven interventions to build back better. This brief analyses the most recent trends in multidimensional poverty among the Member Countries of the Islamic Development Bank (IsDB) prior to the pandemic, which is essential for both understanding the progress made in the past and for use as a benchmark for the future.

The global Multidimensional Poverty Index (MPI) is a measure co-designed by OPHI and UNDP that reflects the multiple deprivations of those unable to reach minimum standards in the dimensions of health, education, and living standards. It measures acute poverty (Alkire, Kanagaratnam, and Suppa, 2020) using 10 indicators grouped into the three equally weighted dimensions (Figure 1).

The global MPI has been estimated annually for over 100 countries in developing regions since its launch in 2010. For 2020, the global MPI covers 107 countries worldwide (Alkire, Kanagaratnam, and Suppa, 2020), including 42 of the 57 IsDB Member Countries. The data come from international surveys such as the Multiple Indicator Cluster Surveys (MICS) and the Demographic and Health Surveys (DHS). In 2020, trends in the global MPI over time were launched for 80 countries with a combined population of five billion people, using two rounds of recent, comparable cross-sectional data (Alkire, Kovesdi, et al., 2020). Trends are available for 34 of the 42 IsDB Member Countries in the global MPI. For the intertemporal trends, the first year of analysis ranges between 2000 to 2014, while the second year ranges from 2010 to 2019, with an average difference between periods of around 5 years.

Figure 1. The global MPI structure


Three Dimensions of Poverty
Health
Education
Living Standards
Nutrition
Child mortality
Years of schooling
School attendance
Cooking fuel
Sanitation
Drinking water
Electricity
Housing
Assets

© Oxford Poverty and Human Development Initiative
Source: OPHI 2018.

A BRIEF INTRODUCTION TO THE ALKIRE-FOSTER METHOD

The MPI conveys information regarding both the incidence and the intensity of poverty. The incidence of poverty is the proportion of people who are identified as poor. This is the proportion of the population experiencing multiple and simultaneous deprivations and is denoted by H, which stands for headcount ratio. The intensity of poverty is the average proportion of (weighted) deprivations poor people experience and is denoted by A. The MPI is the product of both and can be simply obtained by the interaction of the incidence of poverty and the intensity of poverty: MPI = H x A.

Source: Alkire and Foster (2011).

1. KEY FINDINGS ON MULTIDIMENSIONAL POVERTY

The analysis in this section is based on the global MPI 2020 data (Alkire, Kanagaratnam and Suppa, 2020).[1] It provides multidimensional poverty data for 42 of the 57 IsDB countries,[2] using household surveys between 2009 and 2019. These countries, when using 2018 population data (UNDESA, 2019), are home to over 1.5 billion people.

Analysis across these Member Countries shows the following key findings:

- In total, 464 million people (almost one in every three) are living in multidimensional poverty.
- Nine out of ten people in Niger and more than 8 out of 10 in Chad and Burkina Faso are living in poverty.
- Nigeria (91 million) and Pakistan (81 million) have the largest number of poor people.
- More than half of all poor people covered in this brief live in only four countries (Nigeria, Pakistan, Bangladesh, and Uganda).
- There are 69 subnational regions in which at least 8 out of every 10 people are poor.
- Eighty-three per cent of people who are poor live in rural areas.
- Children under the age of 18 make up 44% of the population, but 55% of those who are poor.
- Twenty-nine of the thirty-four countries for which we have trend analyses reduced their global MPI significantly in absolute terms.
- All of these 29 countries also observed overall population growth between the two time periods, except for Albania, and even still, with population growth considered, all but eight countries reduced the number of poor people across the periods – the exceptions being Burkina Faso, Chad, Mali, Mozambique, Niger, Nigeria, Senegal, and Sudan.
- Multidimensional poverty trends do not match monetary poverty trends in US$1.90 a day headcount trends and GNI per capita growth, suggesting different drivers.

1.1 COUNTRY PERFORMANCES: KEY NATIONAL STATISTICS

Three key statistics are used in analysing multidimensional poverty. The first is the incidence or headcount ratio of poverty (known as H), which is the percentage of people who are multidimensionally poor. The second is the intensity of poverty (known as A), which reflects the average share of weighted deprivations that poor people experience. Lastly, the MPI or adjusted headcount ratio (calculated as a product of H and A), reflects the deprivations experienced by poor people as a percentage of the total deprivations that would be experienced if all people were deprived in all indicators. Table 1 presents these statistics for the 42 Member Countries.

As one would expect across 42 countries, the experience of poverty varies markedly. Niger has the highest MPI at 0.590, followed by Chad (0.533) and Burkina Faso (0.519). Underpinning the MPI are very high headcount ratios of 90.5% in Niger, 85.7% in Chad and 83.8% in Burkina Faso. The levels of intensity of poverty among the poor are also highest in Niger (65.2%), Chad (62.3%) and Burkina Faso (61.9%). In 14 of the Member Countries, the majority of the population are living in multidimensional poverty. At the other end of the scale, both Kyrgyzstan and Turkmenistan have an MPI of only 0.001, reflecting very low levels of multidimensional poverty when measured using the global MPI. In eight of the Member Countries, less than 1% of the total population are living in poverty.

Translating this into actual numbers of people, 464 million are living in multidimensional poverty across the 42 Member Countries for which data are available. This means that almost one out of every three people are multidimensionally poor. Table 1 identifies those countries with significant numbers of people who are poor, with Nigeria (91 million) and Pakistan (81 million) having the largest numbers of people living in poverty. When added to those people who are poor in Bangladesh (40 million) and Uganda (24 million), half (50.7%) of all the poor people in the 42 Member Countries live in these four countries.

Table 1. Multidimensional poverty in IsDB Member Countries

Country	MPI data source		Multidimensional poverty					Population 2018	
			MPI (MPI = H*A)		H		A	Total population[a]	Number of MPI-poor people[b]
	Survey	Year	Range 0 to 1	Standard error	% population	Standard error	Average % of weighted deprivations	Thousands	Thousands
Afghanistan	DHS	2015/16	0.272	0.009	55.9	1.3	48.6	37,172	20,783
Albania	DHS	2017/18	0.003	0.001	0.7	0.1	39.1	2,883	20
Algeria	MICS	2012/13	0.008	0.001	2.1	0.2	38.8	42,228	887
Bangladesh	MICS	2019	0.104	0.002	24.6	0.3	42.2	161,377	39,764
Benin	DHS	2017/18	0.368	0.007	66.8	1	55	11,485	7,672
Burkina Faso	DHS	2010	0.519	0.006	83.8	0.8	61.9	19,751	16,559
Cameroon	MICS	2014	0.243	0.007	45.3	1.1	53.5	25,216	11,430
Chad	DHS	2014/15	0.533	0.005	85.7	0.6	62.3	15,478	13,260
Comoros	DHS	2012	0.181	0.01	37.3	1.7	48.5	832	310
Côte d'Ivoire	MICS	2016	0.236	0.006	46.1	1.1	51.2	25,069	11,549
Egypt	DHS	2014	0.019	0.001	5.2	0.3	37.6	98,424	5,083
Gabon	DHS	2012	0.066	0.004	14.8	0.9	44.3	2,119	315
Gambia	MICS	2018	0.204	0.007	41.6	1.3	49	2,280	948
Guinea	DHS	2018	0.373	0.009	66.2	1.2	56.4	12,414	8,220
Guinea-Bissau	MICS	2014	0.372	0.007	67.3	1.1	55.3	1,874	1,261
Guyana	MICS	2014	0.014	0.002	3.4	0.4	41.8	779	26
Indonesia	DHS	2017	0.014	0.001	3.6	0.2	38.7	267,671	9,687
Iraq	MICS	2018	0.033	0.002	8.6	0.5	37.9	38,434	3,319
Jordan	DHS	2017/18	0.002	0	0.4	0.1	35.4	9,965	43
Kazakhstan	MICS	2015	0.002	0.001	0.5	0.1	35.6	18,320	83
Kyrgyzstan	MICS	2018	0.001	0.001	0.4	0.2	36.3	6,304	25
Libya	PAPFAM	2014	0.007	0.001	2.0	0.3	37.1	6,679	133

Table 1. Multidimensional poverty in IsDB Member Countries, continued

Country	MPI data source		Multidimensional poverty					Population 2018	
			MPI (MPI = H*A)		H		A	Total population[a]	Number of MPI-poor people[b]
	Survey	Year	Range 0 to 1	Standard error	% population	Standard error	Average % of weighted deprivations	Thousands	Thousands
Maldives	DHS	2016/17	0.003	0.001	0.8	0.2	34.4	516	4
Mali	DHS	2018	0.376	0.01	68.3	1.5	55	19,078	13,036
Mauritania	MICS	2015	0.261	0.007	50.6	1.2	51.5	4,403	2,227
Morocco	PAPFAM	2011	0.085	0.008	18.6	1.4	45.7	36,029	6,702
Mozambique	DHS	2011	0.411	0.007	72.5	1	56.7	29,496	21,371
Niger	DHS	2012	0.59	0.006	90.5	0.6	65.2	22,443	20,304
Nigeria	DHS	2018	0.254	0.006	46.4	0.9	54.8	195,875	90,919
Pakistan	DHS	2017/18	0.198	0.011	38.3	1.8	51.7	212,228	81,352
State of Palestine	MICS	2014	0.004	0.001	1	0.1	37.5	4,863	46
Senegal	DHS	2017	0.288	0.007	53.2	1.2	54.2	15,854	8,430
Sierra Leone	MICS	2017	0.297	0.005	57.9	0.8	51.2	7,650	4,432
Sudan	MICS	2014	0.279	0.008	52.3	1.4	53.4	41,802	21,874
Suriname	MICS	2018	0.011	0.001	2.9	0.4	39.4	576	16
Syria	PAPFAM	2009	0.029	0.001	7.4	0.3	38.9	16,945	1,253
Tajikistan	DHS	2017	0.029	0.002	7.4	0.5	39	9,101	678
Togo	MICS	2017	0.18	0.008	37.6	1.5	47.8	7,889	2,967
Tunisia	MICS	2018	0.003	0	0.8	0.1	36.5	11,565	92
Turkmenistan	MICS	2015/16	0.001	0	0.4	0.1	36.1	5,851	24
Uganda	DHS	2016	0.269	0.006	55.1	1	48.8	42,729	23,540
Yemen	DHS	2013	0.241	0.007	47.7	1.1	50.5	28,499	13,593

Notes:

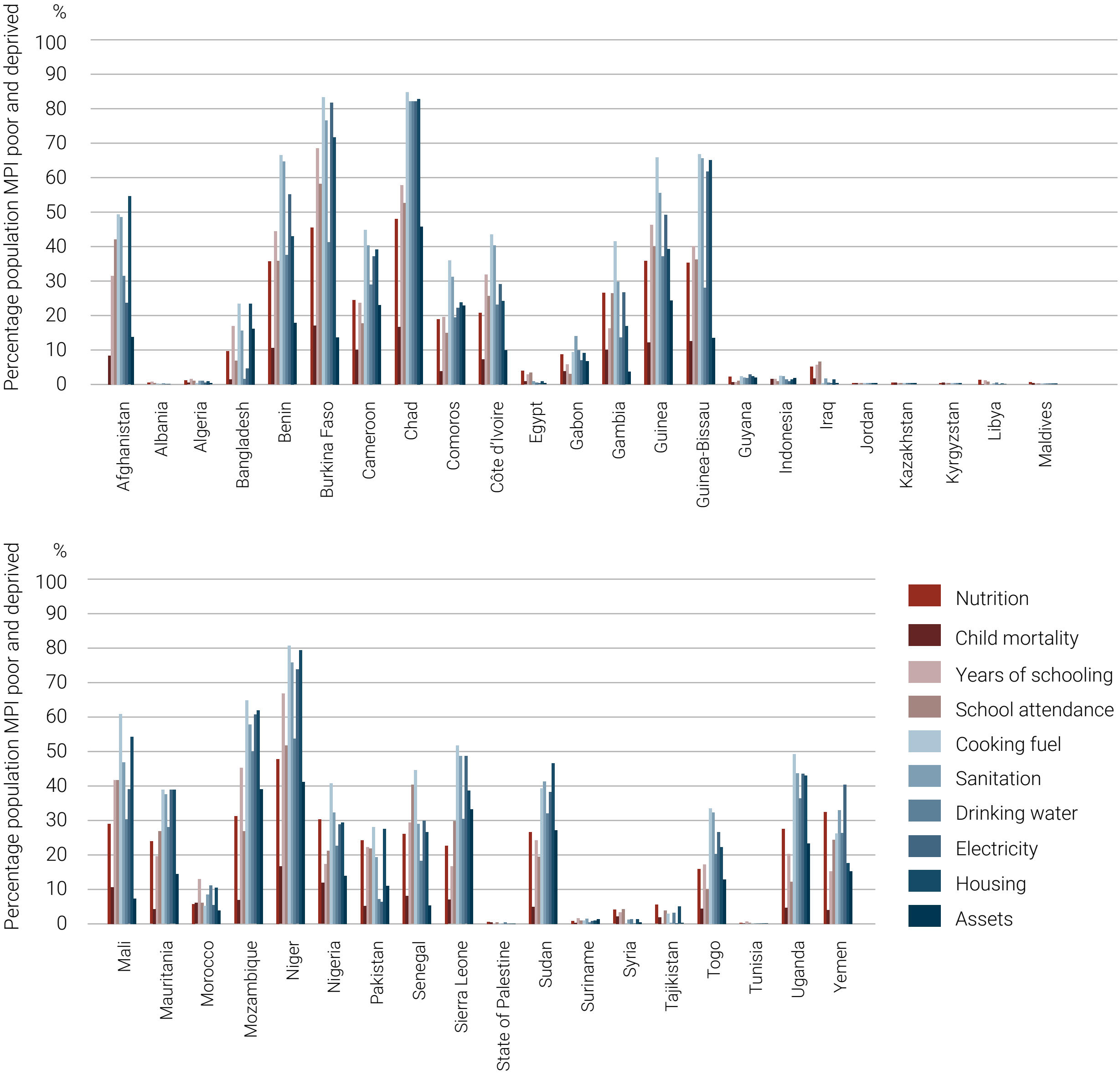
MPI	Multidimensional Poverty Index.
H	Headcount ratio: population in multidimensional poverty.
A	Intensity of deprivation among poor people.
a	UNDESA (2019). Data accessed 28 April 2020.
b	Own calculations based on the MPI results and population projection from the year of 2018. This was computed by multiplying the headcount by the population of 2018, and rounding to the nearest thousand.

Source: Alkire, Kanagaratnam, and Suppa (2020).

Looking at censored headcount ratios, which measure the percentage of people who are MPI poor and deprived in each of the given indicators of the global MPI, Figure 2 shows not only how the ratios vary greatly across countries, but also how the mix of salient deprivations differs from country to country.[3] In Niger, the highest censored headcount ratios are for cooking fuel (89.9%) and housing (88.4%). In Senegal, while the highest censored headcount ratio was also for cooking fuel (49.8%), the second highest was in school attendance (44.9%). By contrast, in Gabon, where the overall levels of deprivation are far lower, the two indicators with the highest censored headcount ratios are sanitation (13.9%) and drinking water (9.7%).

To emphasise the different mix of salient indicators in each country, Figure 3 presents the percentage contributions of each of the indicators to the MPI for all Member

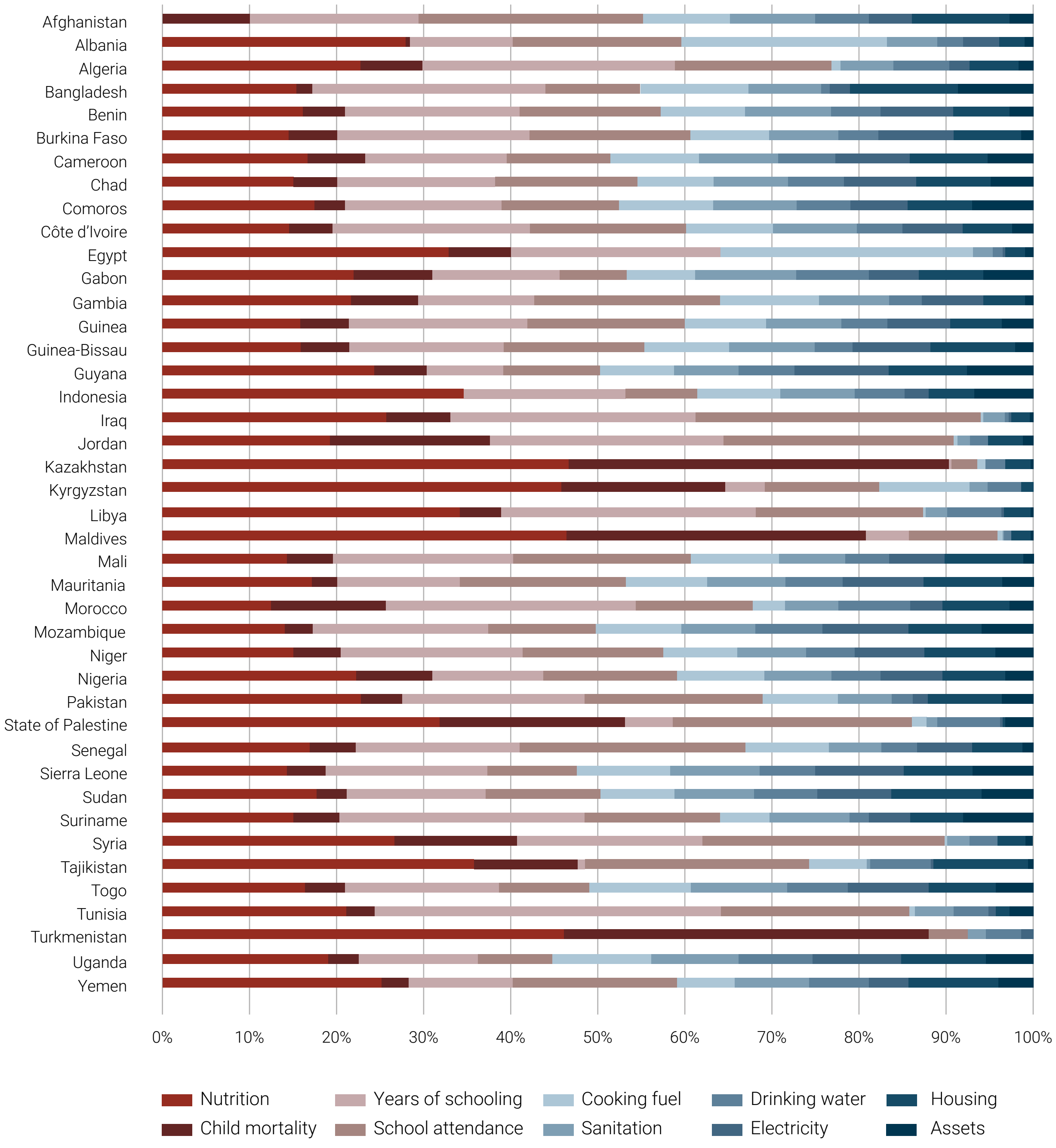
Figure 2. Censored headcount ratios of MPI indicators for IsDB Member Countries



Source: Alkire, Kanagaratnam and Suppa (2020).

Countries. The profiles in Burkina Faso, Benin and Côte d'Ivoire are very similar. The main driving factors in these three countries was years of schooling and school attendance. In Tunisia and Albania, years of schooling was the largest contributor, but nutrition was as large a contributor as school attendance. In Iraq and Senegal, the largest contributor to the MPI was school attendance, whereas for countries such as Kazakhstan, Kyrgyzstan, Maldives and Turkmenistan, nutrition was by far the largest contributor to the MPI.

Figure 3. Percentage contributions of MPI indicators for IsDB Member Countries

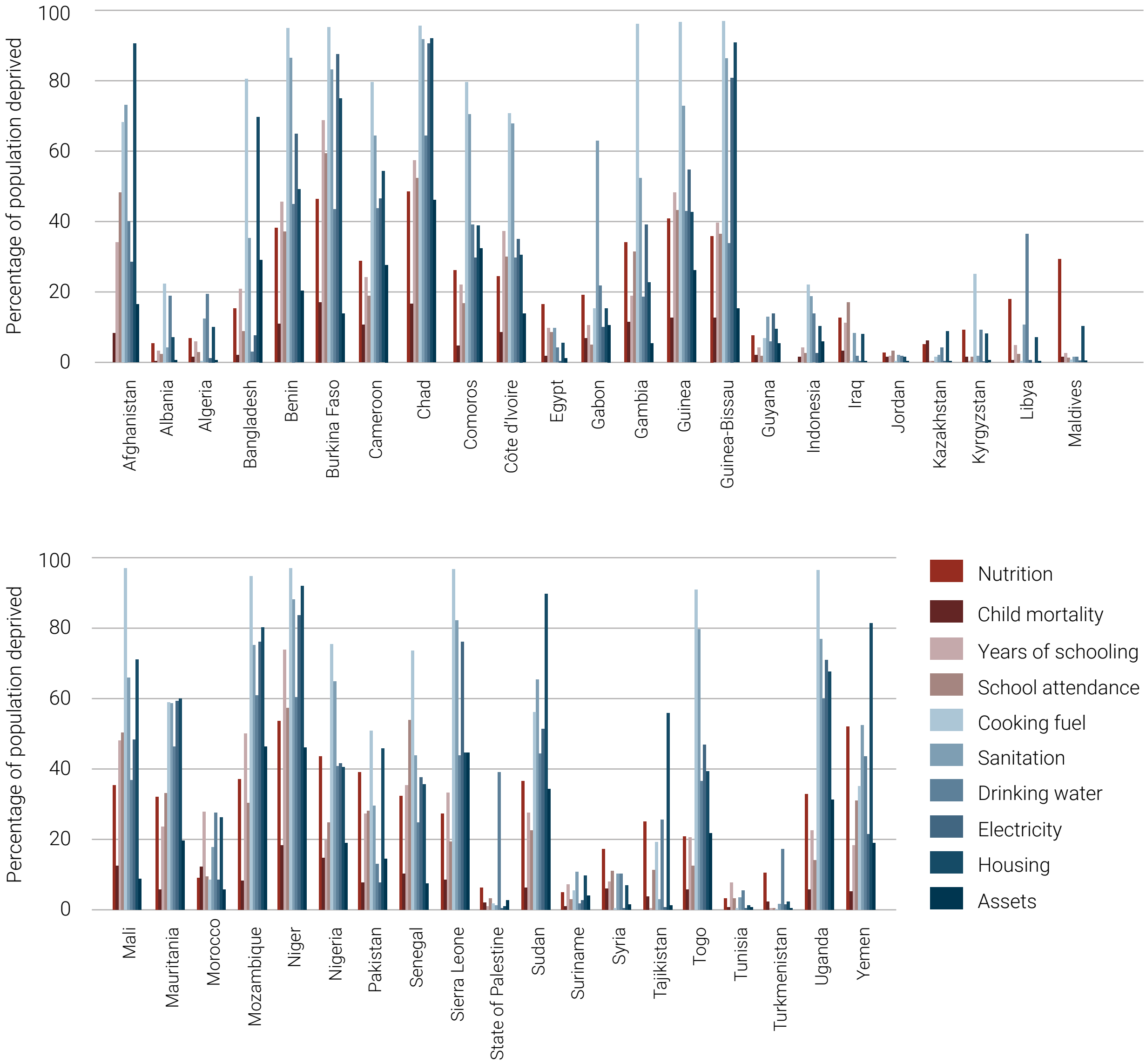


Source: Alkire, Kanagaratnam and Suppa (2020).

The similarities and differences across Member Countries are also evident in the uncensored headcount ratios. In contrast to the censored headcounts that focus only on deprivations experienced by the multidimensionally poor, uncensored headcounts reflect the percentage of the total population of a country who are deprived in each of the 10 indicators (Figure 4). It is clear that deprivation in cooking fuel is a pervasive problem for many countries in sub-Saharan Africa, irrespective of whether one is poor or not. The uncensored headcounts were above 95% in 11 countries, reaching 98.7% in Mali.

The uncensored headcount ratios are an important reminder of levels of deprivation on the various indicators even where countries may have a low MPI. For example, approximately one in four people are deprived in cooking fuel in Kyrgyzstan (25.3%), Albania (22.6%) and Indonesia (22.4%). Similarly, 29.7% of people in Maldives are

Figure 4. Censored headcount ratios of MPI indicators in IsDB Member Countries



Source: Alkire, Kanagaratnam and Suppa (2020).

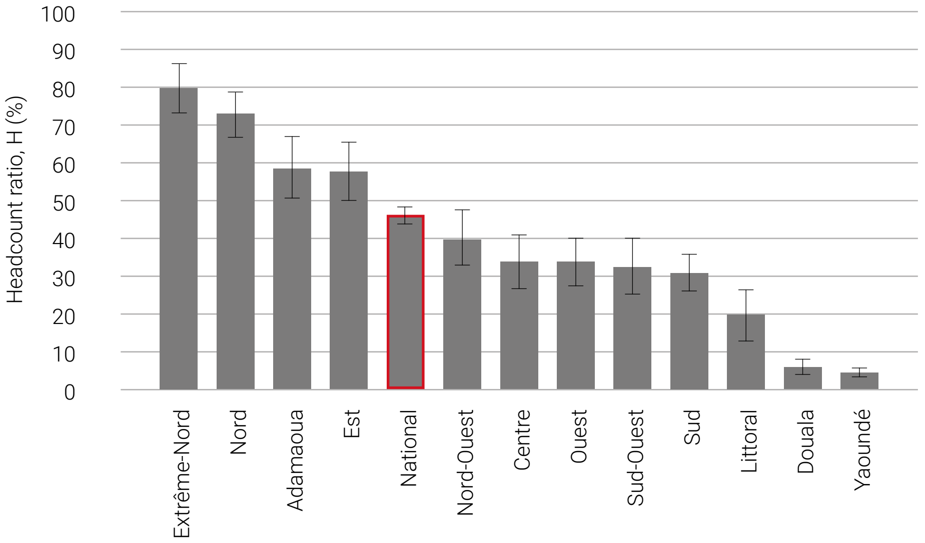
deprived in nutrition, while more than one in three people in both the State of Palestine (39.6%) and Libya (37.0%) are deprived in drinking water.

1.2 COUNTRY PERFORMANCES: SUBNATIONAL STATISTICS

A key feature of the MPI is its ability to be disaggregated by subnational region. Global MPI data at the subnational level exist for all of the IsDB Member Countries except Maldives.[4] There are 536 subnational regions across the 41 countries for which there are data. The subnational region with the highest MPI is Lac in Chad, with an MPI of 0.711. In contrast, there are 18 subnational regions with an MPI of less than 0.001, across the seven countries of Albania (with two regions), Jordan (two), Kazakhstan (seven), Kyrgyzstan (three), Suriname (one), Tunisia (one) and Turkmenistan (two). Focusing on the headcount ratio, almost the entire population (99.4%) of the subnational region of Wadi Fira in Chad is multidimensionally poor. In 29 subnational regions, at least 9 out of 10 people are living in poverty; in 69, this is true for at least 8 out of 10 people. In 208 of the 536 subnational regions, the majority of the population are multidimensionally poor.

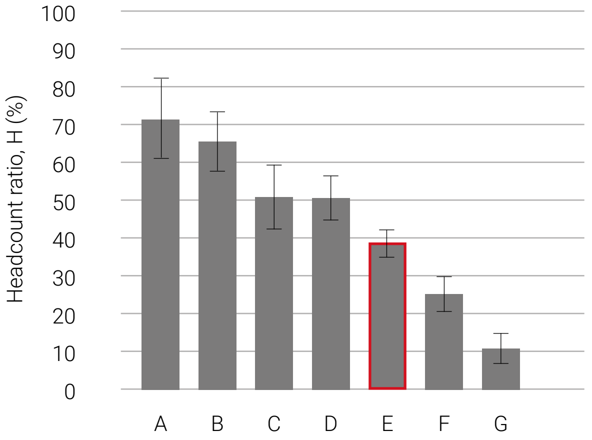
The ability to break down the MPI by subnational region highlights those areas that are poorest within a country and, by implication, most in need of intervention. This has obvious benefits for targeting poverty reduction or eradication interventions. By way of example, Figures 5 and 6 detail the incidence of poverty among the subnational regions of Cameroon and Pakistan. In Cameroon, the headcount ratios range from 80.0% in Extrême-Nord and 73.0% in Nord, to only 5.5% in Douala and 3.9% in Yaoundé (Figure 5). Issues of targeting, however, should always take into account population sizes. In this example, Extrême-Nord and Nord are also the two most populous subnational regions in Cameroon. While together they account for a third (33.1%) of Cameroon's total population, they are home to more than half (56.6%) of the country's multidimensionally poor people.

Figure 5. Headcount ratio in Cameroon's subnational regions



Notes: Error bars represent 95% confidence intervals.
Source: Alkire, Kanagaratnam and Suppa (2020).

Figure 6. Headcount ratio in Pakistan's subnational regions



A	FA Tribal Areas
B	Balochistan
C	Khyber Pakhtunkhwa
D	Sindh
E	National
F	Punjab
G	Islamabad (ICT)

Notes: Error bars represent 95% confidence intervals.
Source: Alkire, Kanagaratnam and Suppa (2020).

In the case of Pakistan, the Federally Administered Tribal Areas (71.5%) and Balochistan (65.3%) have the highest proportions of people who are multidimensionally poor (Figure 6). However, they are also some of the least populous subnational regions in Pakistan. Thus, despite the high headcount ratios, these two regions only account for 14.1% of the country's population who are poor. The largest number of multidimensionally poor people are in Punjab, the most populous subnational region with a comparatively low headcount ratio of 25.2%, but home to a third (34.3%) of Pakistan's total number of people who are multidimensionally poor.

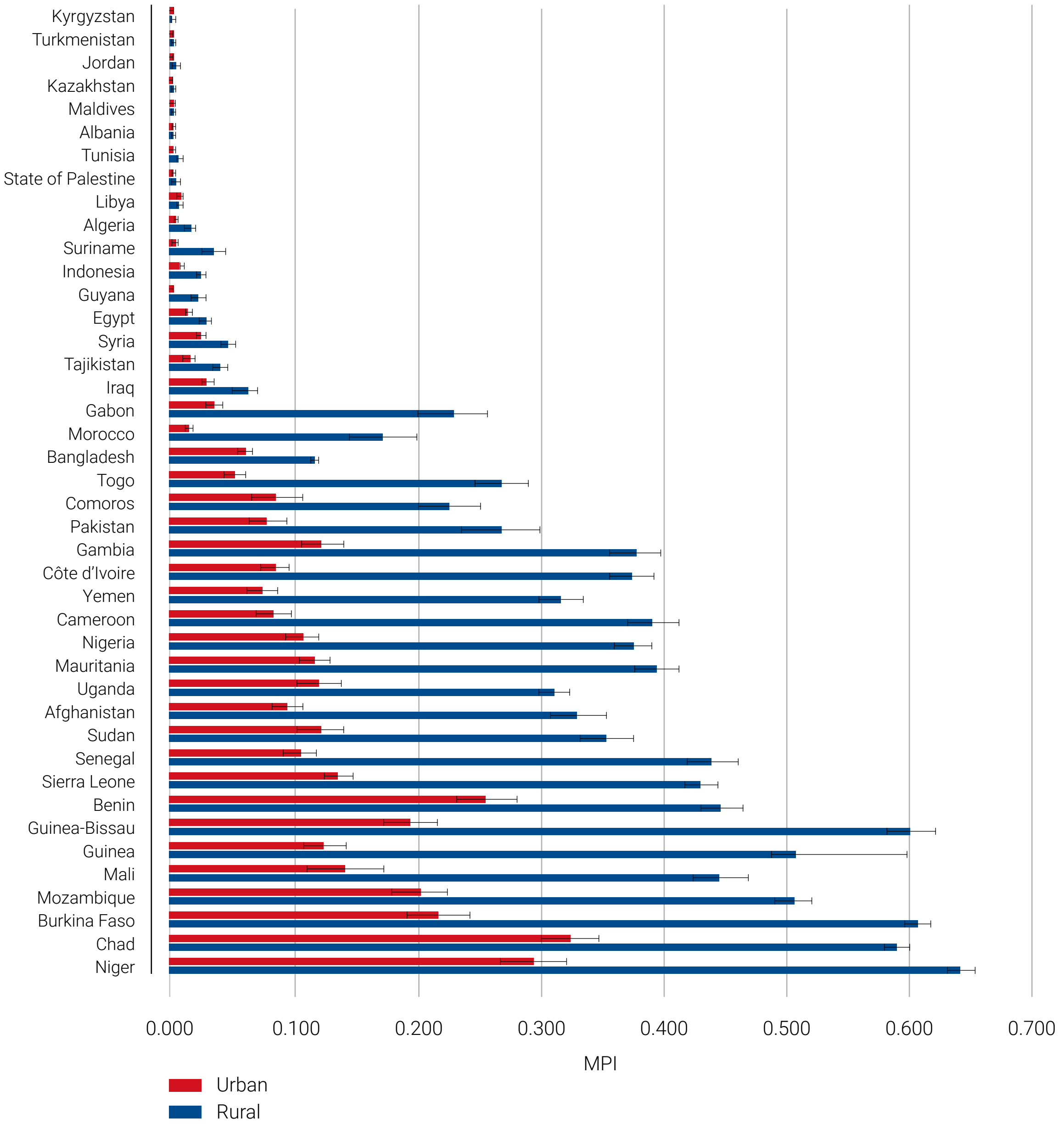
1.3 COUNTRY PERFORMANCES: URBAN–RURAL STATISTICS

The global MPI can also be broken down to compare multidimensional poverty in rural and urban areas. Across the 42 Member Countries, 60% of the total population can be found in rural areas and 40% are living in urban areas. This proportion varies greatly – 84% of the population in Niger live in rural areas, while only 11% of the population in Jordan do so. Rural areas also have a larger share of the population that are poor – they are home to 83% of those who are multidimensionally poor across all Member Countries, meaning that rural populations are overrepresented among the poor.

What is constant across every country is that multidimensional poverty is higher in rural areas than in urban areas (Figure 7). In Niger, for example, the MPI in rural areas is 0.647, which is more than twice as high as the MPI in urban areas of 0.294. In Guinea, the MPI in rural areas (0.503) is approximately four times that in urban areas (0.124), while in Gabon the MPI in rural areas (0.227) is more than six times greater than that in urban areas (0.035). The difference is even higher in Morocco, where the MPI in rural areas is more than 10 times greater at 0.171 than the MPI in urban areas, at only 0.015. The concentration of multidimensional poverty in rural areas suggests the need for concerted efforts to target these areas with interventions aimed at ameliorating the situation.

In seeking to define those interventions aimed at dealing with multidimensional poverty, it is again instructive to look at the percentage contributions of each indicator to the MPI for both rural and urban areas in a country. By means of example, Figure 8 shows these contributions for Algeria, Gabon, and Guyana. In Algeria, nutrition is a larger contributor to the MPI in urban areas (31.2%) than it is in rural areas (18.3%). While the education indicators of years of schooling and school attendance are similar across urban and rural areas in Algeria, sanitation, drinking water and housing are more pertinent in rural areas (combined at 21.5%) than they are in urban areas (10.8%). In Gabon, school attendance is more of a contributing factor in urban areas (11.4%) than in rural areas (4.6%).

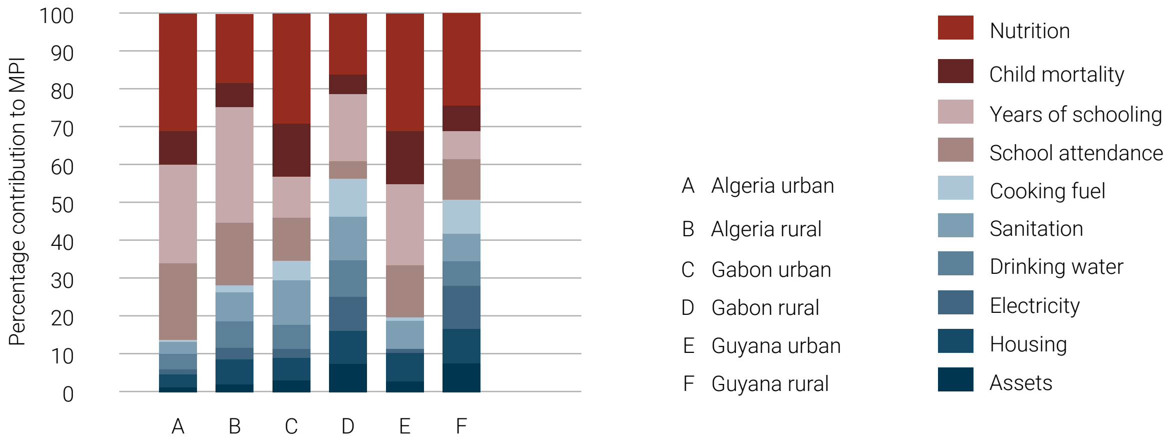
Figure 7. MPI by area for IsDB Member Countries (ordered by country MPI)



Notes: Error bars represent 95% confidence intervals.

Source: Alkire, Kanagaratnam and Suppa (2020).

Figure 8. Percentage contributions of indicators to MPI for urban and rural areas in Algeria, Gabon and Guyana



Source: Alkire, Kanagaratnam and Suppa (2020).

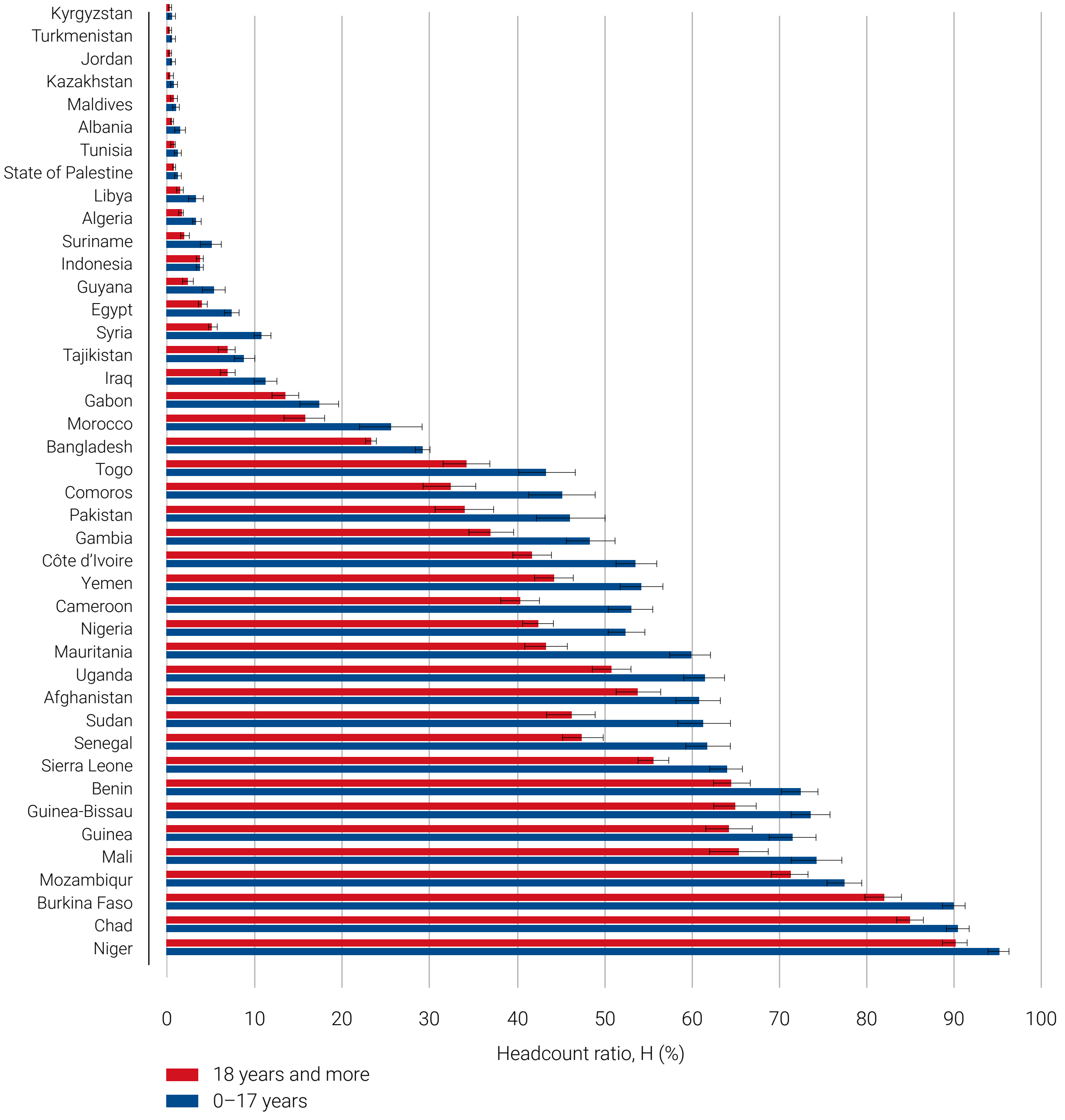
The opposite is true for the other education indicator, with years of schooling contributing 17.8% to the MPI in rural areas and 10.6% in urban areas. In contrast, in Guyana years of schooling contribute significantly more to the MPI in urban areas (21.6%) than in rural areas (7.3%).

The detailed information that can be extracted from the MPI statistics provide policymakers with a wealth of data that can be used to inform their response to the poverty situation in the urban and rural areas of their country. Not only do they need to take cognisance of the different population sizes and incidence of poverty in these areas, but also the requisite mix and focus of policy instruments to deal with poverty will differ across urban and rural areas.

1.4 COUNTRY PERFORMANCES: AGE GROUP STATISTICS

It is also possible to disaggregate the global MPI and its associated statistics by age group. An initial analysis by two age groups – those under the age of 18 and those aged 18 and above – shows that children under 18 are more likely to be multidimensionally poor than adults. Although they only constitute 44% of the total population across the Member Countries, children under the age of 18 make up 55% of those who are poor. Figure 9, which shows the headcount ratio for these two age groups for all Member Countries, reveals that the proportion of those that are poor was higher in every country (although the difference is Indonesia was marginal and insignificant). The difference in headcount ratio between children under 18 and adults is greatest in Mauritania (a difference of 16%), Sudan (15%) and Senegal (14%). The potential for specific interventions targeting specific groups of people who are poor is reinforced by these findings.

Figure 9. Headcount ratio by age for IsDB Member Countries (ordered by country MPI)

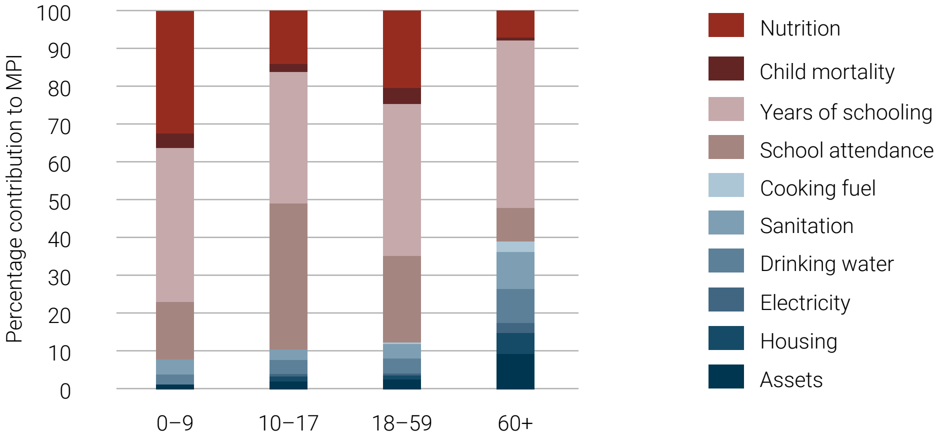


Notes: Error bars represent 95% confidence intervals.

Source: Alkire, Kanagaratnam and Suppa (2020).

The global MPI is also broken down into more age groups: children aged 0 to 9 years old; children aged 10 to 17; adults aged 18 to 59; and adults aged 60 and above. Using Tunisia as an example, Figure 10 indicates that the contributing factors to the MPI for each of these groups can be quite different. The years of schooling indicator is the largest contributor for three of the groups – contributing 40.6% to those aged 0 to 9, 39.9% to those aged 18 to 59, and 44.3% to those aged 60 and above. For the 10- to 17-year-old age group, school attendance was the single largest contributor (38.6%). Nutrition was an important contributor in the 0 to 9-year-old age group, while drinking water (8.8%), assets (9.1%) and sanitation (10.0%) made larger contributions in the oldest age group than in any of the others. This reiterates the point about the usefulness of the MPI and its underlying statistics in providing evidence for policymakers to effectively tackle multidimensional poverty across different groups in society.

Figure 10. Percentage contributions of indicators to MPI by age group in Tunisia



Source: Alkire, Kanagaratnam and Suppa (2020).

2. MULTIDIMENSIONAL POVERTY REDUCTION OVER TIME

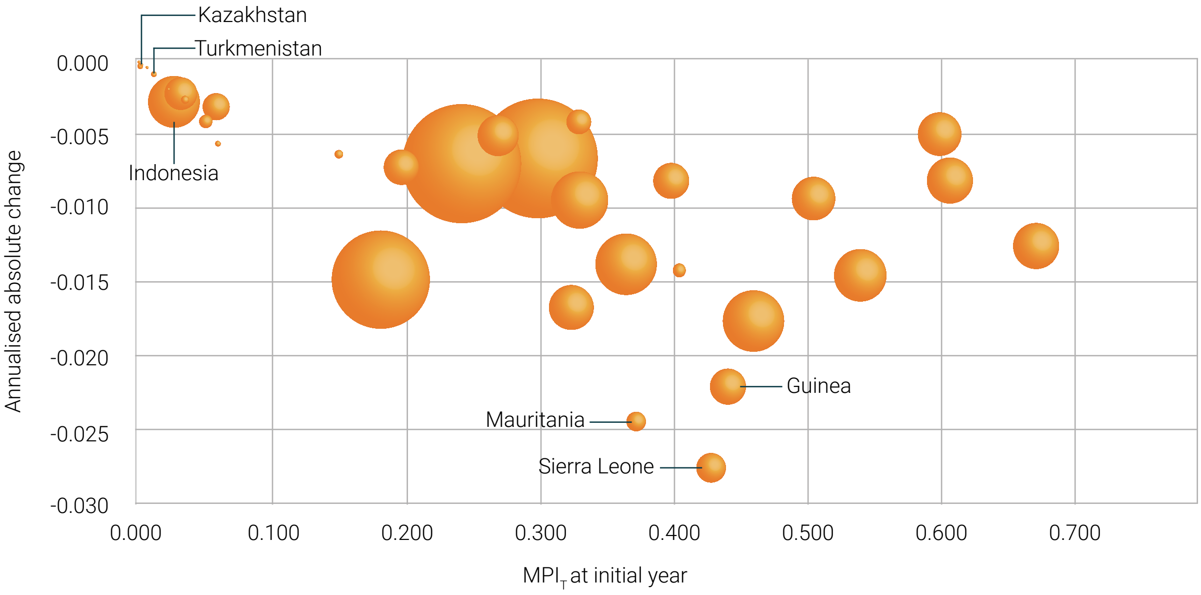
In terms of intertemporal trends among the IsDB Member Countries, data differ by country, with an average difference between the two time periods of 5.84 years. We include data for 34 of the 42 countries, excluding Algeria, Comoros, Guinea-Bissau, Libya, Maldives, Morocco, Syria, and Tunisia, for which we did not have available trend data.[5]

We report changes in multidimensional poverty over time in the harmonised global MPI (MPI_T) and its components – the headcount ratio (H_T), percentage of people identified as multidimensionally poor, and intensity (A_T) or the average percentage of deprivations that poor people experience simultaneously – as well as for the 10 indicators of the index. These global MPI_T estimates follow a strict harmonisation methodology using the same information from both the older and newer datasets to ensure that any differences in poverty are due to changes in the conditions of the country rather than changes in the questionnaire.[6] All indicator definitions, weights, and poverty cutoffs used in the survey comparisons follow the same structure within countries. Such analysis allows us to infer broad poverty alleviation trends over time, to investigate the contributions and levels of poverty by each indicator, and to focus on poverty reduction broken down by province, urban and rural areas, and age groups. We further interrogate which of the indicators drove progress, and analyse where population growth competes with this progress. We also compare reductions in multidimensional poverty with trends in income poverty and economic growth.

2.1 COUNTRY PERFORMANCES: POVERTY REDUCTIONS

Twenty-nine of the thirty-four countries observed a statistically significant reduction in the MPI_T between their two time periods, with the exceptions being Benin, Cameroon, Jordan, the State of Palestine, and Togo.[7] Sierra

Figure 11. Annualised absolute reductions in the MPI_T



Notes: The size of the bubbles is a proportional representation of the total number of MPI poor in each country in the initial year.
Source: Alkire, Kovesdi, Mitchell, et al. (2020).

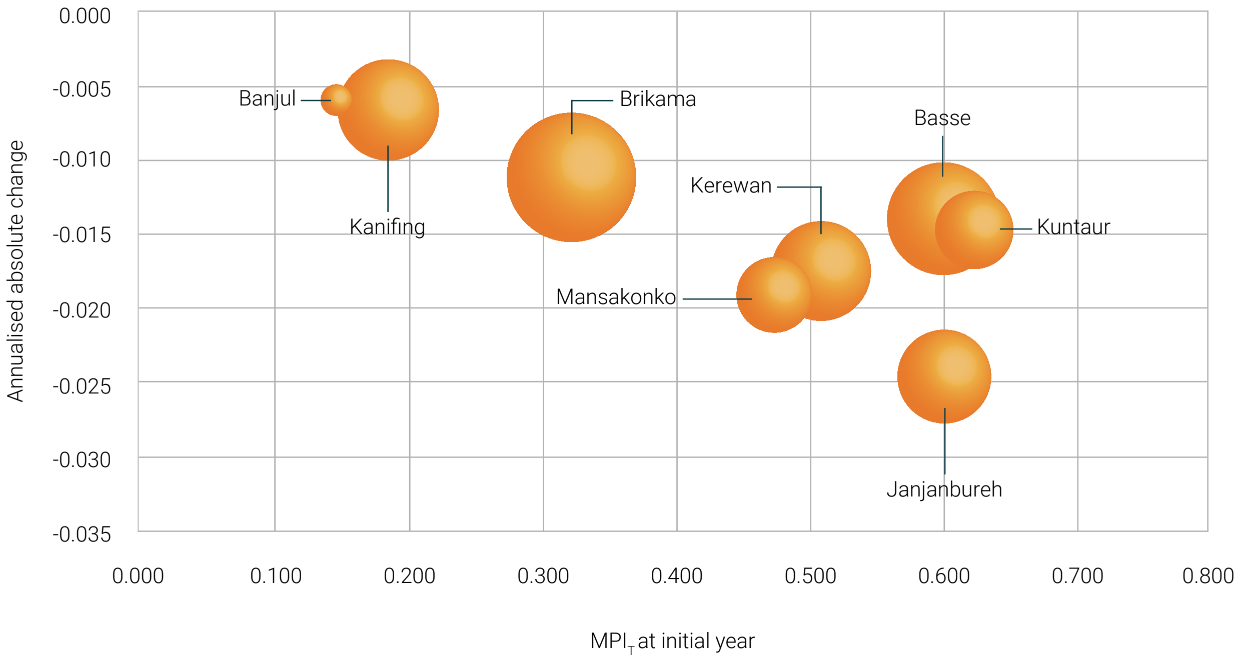
Leone had the greatest reduction per year (at -0.027 per year between 2013 to 2017), followed by Mauritania (-0.024) and Guinea (-0.022), from 2011 to 2015 and 2012 to 2016, respectively. Kazakhstan, which had the slowest absolute reduction per year in multidimensional poverty, nonetheless had the greatest reduction relative to its initial poverty levels (at -13.9% per year for 2010/11 to 2015), followed by Indonesia (-12.9%, from 2012 to 2017) and Turkmenistan (-12.4%, from 2006 to 2015/16).

Figure 11 plots the starting level of MPI_T poverty on the horizontal axis, with the poorest country, Niger, furthest to the right. The vertical axis is the pace of reduction of the MPI_T, with the lower bubbles showing fastest absolute poverty reduction. Figure 11 shows exciting pro-poor reduction among the IsDB Member Countries, with 7 of the top 10 poorest countries in the initial year – Afghanistan, Gambia, Guinea, Mauritania, Mozambique, Niger, and Sierra Leone – also having top 10 rates of MPI_T reduction.[8]

Of the 239 subnational regions included in these countries for which we have data,[9] 143 experienced statistically significant reduction in their MPI_T. Among these 143 regions, we find reductions across all of Bangladesh, Gambia, Guyana, Mozambique, and Niger's regions, all but 1 of Mauritania's 12 regions and Afghanistan's 8 regions, and 12 of Sierra Leone's 14 regions. Nigeria had the largest range of subnational MPI_T values at the initial year, where in 2013, Lagos, Nigeria's most populous city, had an MPI_T of 0.021, while Yobe state, which has been affected by violence due to Boko Haram's insurgency, had an MPI_T of 0.612. That said, neither Lagos nor Yobe state experienced a significant reduction in poverty between 2013 and 2018.

Three countries had standout subnational poverty reduction stories – Bangladesh, Mauritania, and Sierra Leone – and are covered in greater detail in the regional briefs. Figure 12 highlights Gambia, where the subnational story also merits attention. It plots the starting level of MPI_T poverty on the horizontal axis, with the poorest subnational region of Gambia, Kuntaur, furthest to the right. Figure 12 shows the pro-poor reduction among Gambia's

Figure 12. Annualised absolute reductions in the MPI_T of Gambia

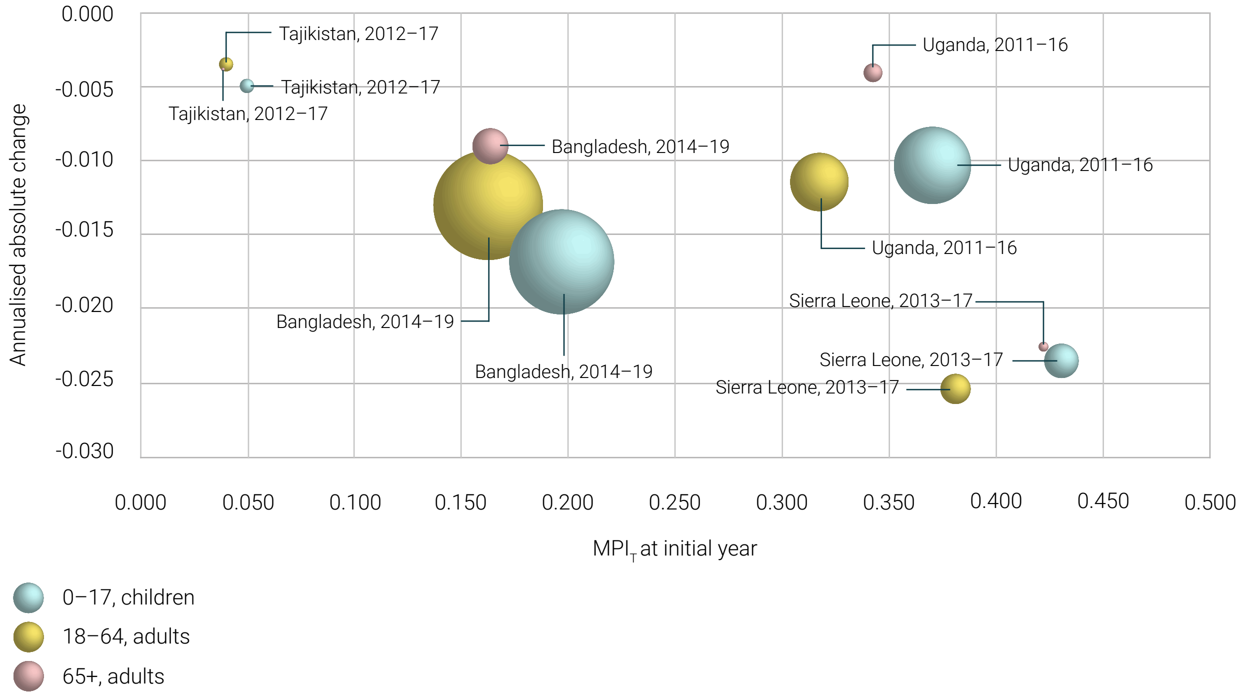


Notes: The size of the bubbles is a proportional representation of the total number of MPI poor in each region in the initial year.
Source: Alkire, Kovesdi, Mitchell, et al. (2020).

subnational regions, with Basse, Janjanbureh, Kerewan, Kuntaur, and Mansakonko, the five poorest regions, managing the greatest reduction in poverty between 2005/06 and 2013. These reductions are particularly laudable for Basse, Janjanbureh, and Kuntaur, who, in the initial year, each had a poverty incidence over 90% (92.8%, 93.1%, and 93.6%, respectively). Janjanbureh significantly reduced its incidence by over 20 percentage points, to 72.1%, and its absolute reduction in MPI$_T$ (-0.029) far exceeded the national pace of reduction (-0.014). Improvements in the health indicators drove progress in the region, where, for example, the child mortality indicator's censored headcount ratio fell from 70.6% in 2005/06 to 31.1% in 2013, and the nutrition indicator's censored headcount ratio fell from 63.5% in 2005/06 to 26.7% in 2013.

We can also break down the reductions in the MPI$_T$ by age group. Looking at three demographic categories – children aged 0-17; adults aged 18-64; and adults aged 65 and above – we observe plenty of variation among the age of the population who are living in multidimensionally poor households. Figure 13 shows the reductions in the MPI$_T$ for each country's disaggregated age groups. Twelve countries see households with children with the largest gains in poverty reductions,[10] four countries see the greatest gains in households with adults aged 18-64,[11] and 13 countries see the greatest gains in households with adults aged 65 and above.[12] Unfortunately, Benin saw a significant increase in poverty among adults aged 18-64, and Cameroon, Jordan, and the State of Palestine did not see any MPI$_T$ age group reductions that were significant at the level of α=0.05. This demographic disaggregation reaffirms the move towards poverty eradication among almost all ages, but also highlights the different lived experiences within and between countries, through their initial levels of poverty, their relative share of the population, and their relative capability in pursuing lives they have reason to value.

Figure 13. Annualised absolute reductions in the MPI$_T$ by age group



Notes: The size of the bubbles is a proportional representation of the total number of MPI poor in each country in the initial year.
Source: Alkire, Kovesdi, Mitchell, et al. (2020).

2.2 COUNTRY PERFORMANCES: REDUCTIONS IN INCIDENCE AND INTENSITY

As Tables 2A and 2B show, 27 of the 34 IsDB Member Countries for which we have data on multidimensional poverty trends, reduced both the MPI_T and the percentage of people identified as multidimensionally poor (incidence, H_T) significantly.[13] Two countries – Burkina Faso and Chad – reduced their MPI_T significantly but not incidence. Of these 27, six countries – Albania, Guyana, Nigeria, Pakistan, Suriname, and Tajikistan – did not significantly reduce the average percentage of deprivations that these poor people experience simultaneously (intensity, A_T), although Burkina Faso and Chad did. Additionally, Jordan saw a significant increase in intensity. Reductions in intensity were strongest in Mauritania, Guinea, and Niger, once again touting a pro-poor reduction among IsDB Member Countries, as Niger's MPI_T in its first year (2006) ranked it as the poorest country, Guinea as the seventh-poorest (in 2012), and Mauritania as the eleventh-poorest (in 2011). With these two additional statistics in mind, Mauritania is the top performing of the 34 Member Countries, as it is a top-three reducer in the MPI_T, H_T, and A_T in both absolute and relative terms, with the only exception being in relative terms for H_T. Between 2011 and 2015, nearly a quarter of a million people left multidimensional poverty in Mauritania. Mauritania was also a low-income country in the first time period and graduated to lower-middle income by its second year. It therefore offers meaningful lessons for other countries.

Table 2 A. Annualised change in incidence (H_T) for IsDB Asia Member Countries

Country	Incidence, H_T (%)		Annualised change[a]			Number of poor people (thousands)	
	Y1	Y2	Absolute (p.p.)	Relative (%)		Y1	Y2
Afghanistan (2010/11–15/16)	76	64.1	-2.4	-3.4	***	22,538	22,366
Albania (2008/09–17/18)	2.1	0.7	-0.2	-11.3	***	62	20
Bangladesh (2014–19)	37.6	24.1	-2.7	-8.5	***	58,036	39,236
Benin (2014–17/18)	63.2	66	0.8	1.2	*	6,504	7,477
Burkina Faso (2006–10)	88.7	86.3	-0.6	-0.7	*	12,272	13,469
Cameroon (2011–14)	47.7	45.5	-0.7	-1.6		9,966	10,312
Chad (2010–14/15)	90	89.4	-0.1	-0.2		10,759	12,413
Côte d'Ivoire (2011/12–16)	58.9	46.1	-2.8	-5.3	***	12,235	10,975
Egypt (2008–14)	8	4.9	-0.5	-7.9	***	6,375	4,412
Gabon (2000–12)	30.9	15.5	-1.3	-5.6	***	379	271
Gambia (2005/06–13)	68	54.7	-1.8	-2.9	***	1,067	1,073
Guinea (2012–16)	71.3	61.6	-2.4	-3.6	***	7,590	7,229
Guyana (2009–14)	5.5	3.3	-0.4	-9.9	**	41	25
Indonesia (2012–17)	6.9	3.6	-0.7	-12.2	***	17,076	9,514
Iraq (2011–18)	14.4	9.3	-0.7	-6	***	4,427	3,591
Jordan (2012–17/18)	0.5	0.4	0	-3.5		42	43
Kazakhstan (2010/11–15)	0.9	0.5	-0.1	-13.5	**	146	81
Kyrgyzstan (2005/06–14)	9.3	3.4	-0.7	-11.2	***	475	198
Mali (2006–15)	83.7	73	-1.2	-1.5	***	11,057	12,733
Mauritania (2011–15)	63	50.5	-3.1	-5.4	***	2,268	2,045
Mozambique (2003–11)	84.3	71.2	-1.6	-2.1	***	16,305	17,216
Niger (2006–12)	92.9	89.9	-0.5	-0.6	***	13,141	15,992
Nigeria (2013–18)	51.3	46.4	-1	-2	***	88,162	90,919
Pakistan (2012/13–17/18)	44.5	38.3	-1.2	-2.9	**	84,180	80,523
State of Palestine (2010–14)	1.3	1	-0.1	-7.3		53	42
Senegal (2005–17)	64.3	52.5	-1	-1.7	***	7,129	8,102
Sierra Leone (2013–17)	74.1	58.3	-3.9	-5.8	***	5,084	4,364
Sudan (2010–14)	57	52.4	-1.2	-2.1	**	19,691	19,889
Suriname (2006–10)	12.8	8.4	-1.1	-10	***	65	44
Tajikistan (2012–17)	12.2	7.4	-1	-9.5	***	960	658
Togo (2010–13/14)	57.5	55.3	-0.6	-1.1		3,693	3,899
Turkmenistan (2006–25/16)	3.4	1	-0.2	-11.5	***	162	59
Uganda (2011–16)	67.7	57.2	-2.1	-3.3	***	22,672	22,672
Yemen (2006–13)	38	29.2	-1.3	-3.7	***	7,855	7,346

Notes: a) Where the survey was conducted over two years, the average of the years was used to compute the annualised changes. *** statistically significant at α=0.01, ** statistically significant at α=0.05, * statistically significant at α=0.10.

Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Table 2 B. Annualised change in intensity (A_T) for IsDB Asia Member Countries

Country	Intensity, AT (%)		Annualised change[a]			Total population (thousands)	
	Y1	Y2	Absolute (p.p.)	Relative (%)		Y1	Y2
Afghanistan (2010/11–15/16)	57.8	54.9	-0.6	-1	***	29,651	34,898
Albania (2008/09–17/18)	37.8	39.1	0.1	0.4		2,988	2,883
Bangladesh (2014–19)	46.5	42	-0.9	-2	***	154,517	163,046
Benin (2014–17/18)	68.4	66.5	-0.5	-0.7	**	13,829	15,605
Burkina Faso (2006–10)	66.7	64.7	-0.4	-0.7	***	11,952	13,887
Cameroon (2011–14)	52.7	51.2	-0.3	-0.6	**	20,781	23,823
Chad (2010–14/15)	40.1	37.6	-0.4	-1.1	***	79,636	90,425
Côte d'Ivoire (2011/12–16)	47	44.7	-0.2	-0.4	***	1,228	1,750
Egypt (2008–14)	56.9	51.4	-0.7	-1.3	***	1,568	1,964
Gabon (2000–12)	46.3	43.9	-0.6	-1.3	*	505	529
Gambia (2005/06–13)	59.1	54.2	-1.2	-2.1	***	10,652	11,738
Guinea (2012–16)	40.3	38.7	-0.3	-0.8	***	248,452	264,651
Guyana (2009–14)	39.6	38.1	-0.2	-0.5	***	30,725	38,434
Indonesia (2012–17)	33.8	35.3	0.3	0.8	**	8,090	9,876
Iraq (2011–18)	59.9	57.2	-0.3	-0.5	***	13,203	17,439
Jordan (2012–17/18)	56.7	51.5	-1.3	-2.3	***	3,599	4,046
Kazakhstan (2010/11–15)	36.2	35.5	-0.2	-0.4		16,371	17,572
Kyrgyzstan (2005/06–14)	37.8	37.2	-0.1	-0.2		5,100	5,845
Mali (2006–15)	61.2	56.3	-0.6	-1	***	19,331	24,188
Mauritania (2011–15)	71.9	66.1	-1	-1.4	***	14,144	17,795
Mozambique (2003–11)	59.4	54	-0.4	-0.8	***	11,090	15,419
Niger (2006–12)	55.3	51.5	-0.9	-1.8	***	6,864	7,488
Nigeria (2013–18)	54.2	53.5	-0.2	-0.4		20,906	22,682
Pakistan (2012/13–17/18)	52.3	51.7	-0.1	-0.2		189,270	210,067
State of Palestine (2010–14)	38	37.8	-0.1	-0.1		4,056	4,429
Senegal (2005–17)	55.9	54.8	-0.2	-0.4	*	171,766	195,875
Sierra Leone (2013–17)	55.5	53.4	-0.5	-1	***	34,545	37,978
Sudan (2010–14)	38	34.8	-0.3	-0.9	***	4,810	5,614
Suriname (2006–10)	54.9	54.5	-0.1	-0.2		6,422	7,046
Tajikistan (2012–17)	40.4	39	-0.3	-0.7	*	7,875	8,880
Togo (2010–13/14)	42.2	41.9	-0.1	-0.2		748	763
Turkmenistan (2006–15/16)	51.5	49.2	-0.5	-0.9	***	33,477	39,649
Uganda (2011–16)	54.7	54.9	0.1	0.1		10,287	11,330
Yemen (2006–13)	49.8	47.5	-0.3	-0.7	***	20,688	25,147

Notes: a) Where the survey was conducted over two years, the average of the years was used to compute the annualised changes. *** statistically significant at α=0.01, ** statistically significant at α=0.05, * statistically significant at α=0.10.

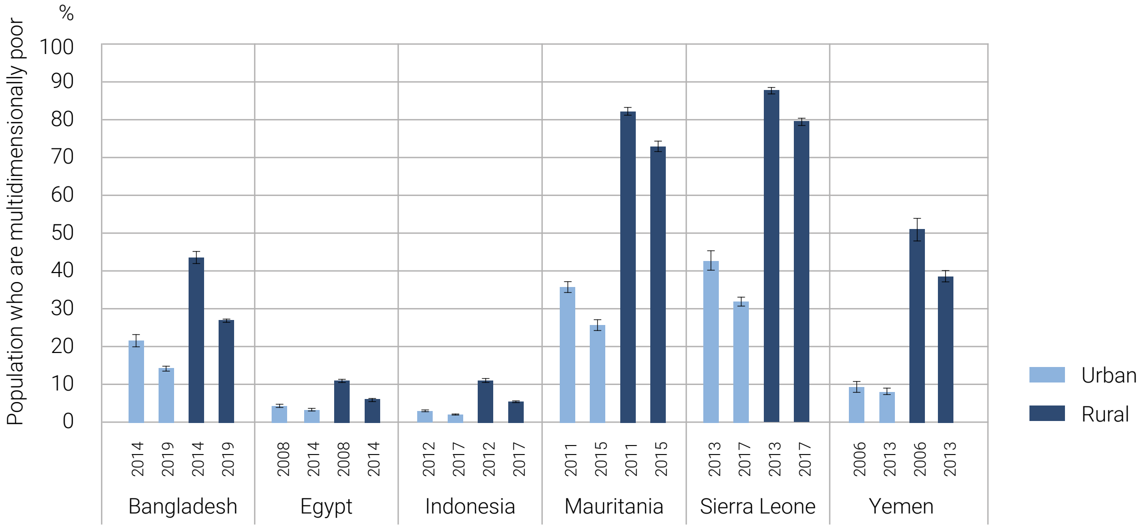
Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Furthermore, we see great variation in the reduction of poverty incidence – the percentage of the population who are multidimensionally poor – among the urban and rural areas of the 34 IsDB Member Countries (Figure 14). The incidence of poverty reduced significantly in the rural areas of all countries except Benin, Cameroon, Jordan, Kazakhstan, Pakistan, Sudan, and Togo, whereas the incidence of poverty reduced significantly in the urban areas of all countries except Albania, Benin, Cameroon, Chad, Guyana, Jordan, Kazakhstan, Pakistan, Nigeria, the State of Palestine, Sudan, Tajikistan, Togo, Turkmenistan, Uganda, and Yemen. While to some extent, this disaggregation compliments the IsDB Member Countries for their pro-poor reductions – in all countries, rural areas started out poorer than urban areas (except for Jordan), and significant poverty reduction was more consistently achieved in those rural areas – it also reveals the inequalities faced by urban and rural populations. Clearly, multidimensional poverty among IsDB Member Countries is more frequently experienced by their rural populations. This reality must be taken into account to ensure that, when focused on ending poverty in all its forms and dimensions, no one is left behind.

2.3 COUNTRY PERFORMANCES: REDUCTIONS BY INDICATOR

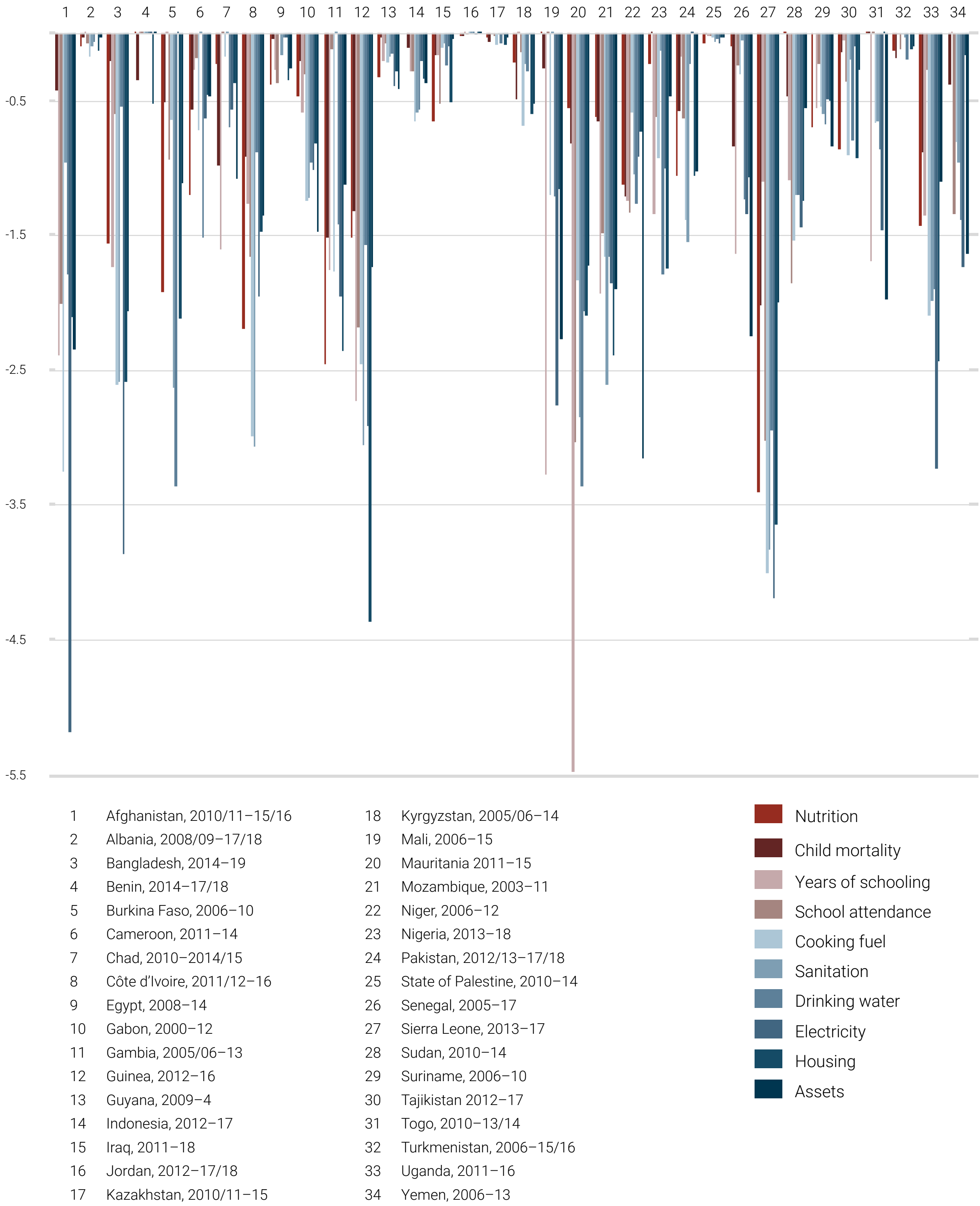
Figure 15 presents the yearly reductions in the percentage of people who are poor and deprived in each of the 10 indicators. None of the indicators saw significant yearly reductions in all countries,[14] although the assets indicator did see significant reductions in all but five countries: Benin, Cameroon, Jordan, the State of Palestine, and Sudan. The housing indicator also saw significant reductions in all countries except eight – Benin, Cameroon, Chad, Guyana, Jordan, the State of Palestine, Togo, and Yemen. Nine IsDB Member Countries saw significant yearly reductions in all censored headcount ratios,[15] and Guinea, Indonesia, Niger, and Sierra Leone also significantly reduced all uncensored headcount ratios. Benin saw no significant reductions among its indicators, but unfortunately did see significant increases in deprivations among the multidimensionally poor in school attendance (1.3 p.p.), cooking fuel (0.8 p.p.), and drinking water (1.3 p.p.).

Figure 14. Incidence of poverty over time by urban and rural areas



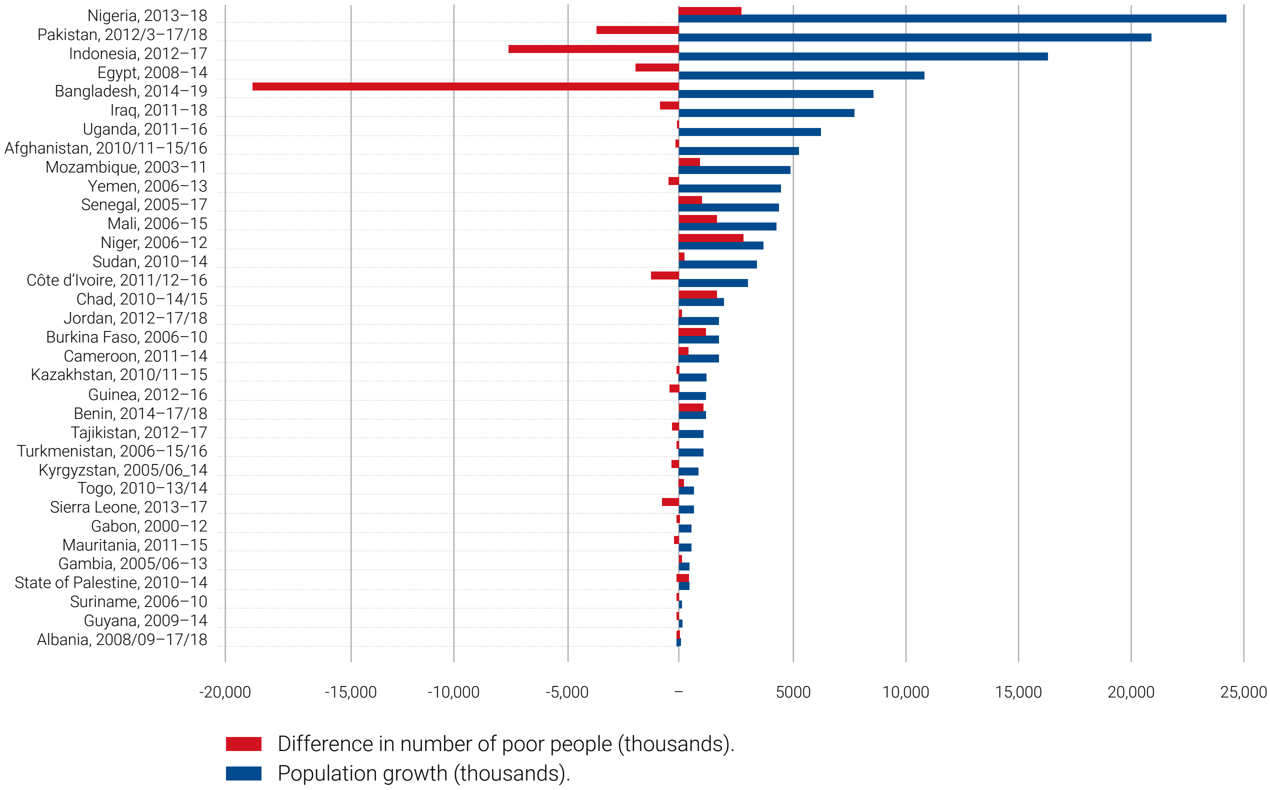
Notes: Error bars represent 95% confidence intervals.
Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Figure 15. Annualised changes for censored headcount ratios



Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Figure 16. Population growth versus number of poor people in IsDB Member Countries



Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Sierra Leone reduced the percentage of people who are poor and deprived in nutrition the fastest at 3.4% per year; as well as in child mortality (2.0% per year), sanitation (3.8% per year), and cooking fuel (4.0% per year). Mauritania saw the fastest reduction in the percentage of people who are poor and deprived in years of schooling (5.5% per year) and school attendance (3.0% per year). Burkina Faso was the fastest in the percentage of people who are poor and deprived in drinking water conditions (3.4% per year), Afghanistan the fastest in electricity (5.2% per year), Guinea the fastest in housing (4.4% per year), and Niger the fastest in assets (3.2% per year). This shows that different indicators can drive poverty reduction in different contexts.

2.4 POPULATION GROWTH AND THE NUMBER OF PEOPLE LIVING IN POVERTY

In order to eradicate poverty, the speed of reduction in the multidimensional headcount ratio (H_T) must outpace population growth. All of the 29 IsDB Member Countries that reduced their MPI_T significantly also observed overall population growth between the two time periods, except for Albania (Figure 16). Even with population growth taken into account, all but eight countries reduced the number of poor people across the periods – the exceptions being Burkina Faso, Chad, Mali, Mozambique, Niger, Nigeria, Senegal, and Sudan. In Bangladesh, the number of poor people reduced by nearly 19 million; in Indonesia, by nearly 8 million; in Pakistan, by nearly 4 million; and in Côte d'Ivoire and Egypt, the number of poor people reduced by nearly 2 million. That exponential population growth did not overshadow the progress in poverty reduction within most of these countries is a victory worth celebrating.

2.5 COMPARING MULTIDIMENSIONAL AND MONETARY POVERTY

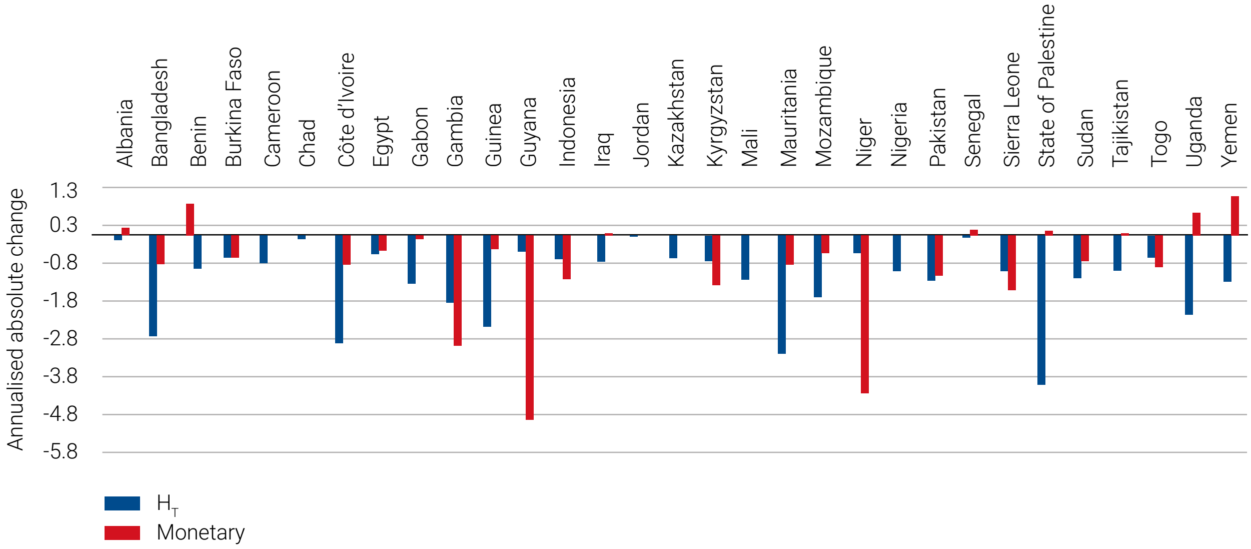
Multidimensional poverty incidence was larger than income poverty at the beginning of the comparison period in all countries for which we have monetary poverty data, except for Indonesia, Kyrgyzstan, and Nigeria.[16] The gap between the initial multidimensional and income poverty incidence varies from slight differences in Jordan (0.5% and 0.1%) to dramatic differences in Mauritania (63.0% and 8.4%), Chad (90.0% and 41.5%), and Sudan (57.0% and 15.5%). Figure 17 depicts the annualised absolute rates of change in the incidence of H_T and US$1.90/day poverty for the 31 countries for which we have income data. Nineteen countries had a reduction in poverty according to both measures,[17] with multidimensional poverty reducing faster in Bangladesh, Côte d'Ivoire, Egypt, Gabon, Guinea, Kazakhstan, Mauritania, Mozambique, Pakistan, and Sudan. In Albania, Iraq, Mali, Nigeria, Sierra Leone, Tajikistan, Uganda, and Yemen, multidimensional poverty incidence declined significantly while the incidence of monetary poverty increased.

If income and multidimensional poverty measures were perfectly correlated, and if they both identified the same people as poor, there would be no need for two separate measures. Indeed, had we looked only to income poverty measures, the standout gains of Sierra Leone would have been overlooked. Instead, we observe important variations between both rates and, at times, the direction of change of these two poverty measures. This suggests that multidimensional poverty trends are not tracking with monetary poverty trends, and we must look at both 'sister' measures to understand the character of poverty around the world.

2.6 GROWTH IN GNI PER CAPITA AND POVERTY REDUCTION

The level of success in translating the gains of economic growth into poverty reduction varies across countries and, at times, across periods (Table 3). For instance, in the periods under analysis, Egypt, Mali, Mauritania, and Niger registered similar rates of growth in GNI per capita, while Mauritania was the second-fastest reducer in annualised absolute poverty reduction, Mali did not break into the top 10, and Egypt did not break into the top 25. Meanwhile, between 2013 and 2017, Sierra Leone Leone's average GNI per capita shrank by -0.5%, compared with a growth rate around seven times that in Sudan – which far outpaced the others in GNI per capita growth – but the former reduced the MPI_T far faster and led the countries in yearly reductions by the MPI_T, H_T, and A_T. Like the comparison with income poverty, the juxtaposition of multidimensional poverty trends and GNI per capita growth trends reveals the importance of both measures for capturing the experience of global poverty. While governments may pursue lightning-quick economic growth rates, without proper attention to the human development on the ground, they will struggle to meet both the needs of their citizens and their target of ending poverty in all its forms by 2030.

Figure 17. Annualised absolute change in incidence of H_T and US$1.90 a day



Country	H_T	Monetary	Country	H_T	Monetary
Albania (2008/09–17/18)	-0.2	0.17	Kyrgyzstan (2005/06–14)	-0.7	-1.33
Bangladesh (2014–19)	-2.7	0.80	Mali (2006–15)	-1.2	0.00
Benin (2014–17/18)	0.8	-0.9	Mauritania (2011–15)	-3.1	-0.80
Burkina Faso (2006–10)	-0.6	-0.83	Mozambique (2003–11)	-1.6	-0.50
Cameroon (2011–14)	-0.7	-3.06	Niger (2006–12)	-0.5	-4.18
Chad (2010–14/15)	-0.1	0.00	Nigeria (2013–18)	-1.0	0.00
Côte d'Ivoire (2011/12–16)	-2.8	-0.79	Pakistan (2012/13–17/18)	-1.2	-1.08
Egypt (2008–14)	-0.5	-0.43	Senegal (2005–17)	-1.0	-1.47
Gabon (2000–12)	-1.3	-0.13	Sierra Leone (2013–17)	-3.9	0.10
Gambia (2005/06–13)	-1.8	-2.93	State of Palestine (2010–14)	-0.1	0.12
Guinea (2012–16)	-2.4	-0.38	Sudan (2010–14)	-1.2	-0.7
Guyana (2009–14)	-0.4	-4.88	Tajikistan (2012–17)	-1.0	0.02
Indonesia (2012–17)	-0.7	-1.18	Togo (2010–13/14)	-0.6	-0.87
Iraq (2011–18)	-0.7	0.07	Uganda (2011–16)	-2.1	0.58
Jordan (2012–17/18)	0.0	0.00	Yemen (2006–13)	-1.3	1.00
Kazakhstan (2010/11–15)	-0.1	-0.01			

Source: Alkire, Kovesdi, Mitchell, et al. (2020).

Table 3. Relative change in the MPI_T and GNI per capita growth

Country	Multidimensional poverty		GNI per capita[a]	
	MPI_T Year 1	Reduction per year, relative to initial poverty levels (%)	GNI per capita in Year 1, Atlas method (current US$)	Average GNI per capita growth (annual %)[b]
Afghanistan (2010/11–15/16)	0.439	-4.3	520	-
Albania (2008/09–17/18)	0.008	-11	4,155	3
Bangladesh (2014–19)	0.175	-10.4	1,110	5.5
Benin (2014–17/18)	0.346	1.3	1,270	1.8
Burkina Faso (2006–10)	0.607	-1.4	490	2
Cameroon (2011–14)	0.258	-2	1,350	2.2
Chad (2010–14/15)	0.6	-0.8	910	3.1
Côte d'Ivoire (2011/12–16)	0.31	-5.9	1,180	4.3
Egypt (2008–14)	0.032	-8.9	1,840	1.1
Gabon (2000–12)	0.145	-6	3,090	-1.3
Gambia (2005/06–13)	0.387	-4.2	5,630	-1
Guinea (2012–16)	0.421	-5.6	700	3.2
Guyana (2009–14)	0.023	-10	4,180	-
Indonesia (2012–17)	0.028	-12.9	3,580	3.9
Iraq (2011–18)	0.057	-6.5	4,960	-
Jordan (2012–17/18)	0.002	-2.7	3,720	-1.3
Kazakhstan (2010/11–15)	0.003	-13.9	7,860	4.5
Kyrgyzstan (2005/06–14)	0.035	-11.4	475	3
Mali (2006–15)	0.501	-2	500	1
Mauritania (2011–15)	0.357	-7.6	1,600	1.2
Mozambique (2003–11)	0.516	-3.1	320	5.5
Niger (2006–12)	0.668	-2	360	1.4
Nigeria (2013–18)	0.287	-2.4	2,690	0.3
Pakistan (2012/13–17/18)	0.233	-3.1	1,165	2.7
State of Palestine (2010–14)	0.005	-7.4	2,510	3.4
Senegal (2005–17)	0.382	-2.4	1,000	1.6
Sierra Leone (2013–17)	0.409	-7.5	660	-0.6
Sudan (2010–14)	0.317	-3.1	1,190	5.9
Suriname (2006–10)	0.059	-11.2	4,040	-
Tajikistan (2012–17)	0.049	-10.1	1,150	5.4
Togo (2010–13/14)	0.316	-1.3	560	3.8
Turkmenistan (2006–15/16)	0.013	-12.4	1,890	-
Uganda (2011–16)	0.349	-4.2	850	1.8
Yemen (2006–13)	0.189	-4.3	810	-

Notes: a) GNI figures from the World Development Indicators (World Bank, 2021). Where the survey was conducted over two years, the average of the years was used to compute the GNI statistic.

b) The average is computed using the available annual values between the first and second time periods. Albania did not have data on 2008, so the statistic provided is the average of the annual values between 2009 and 2018; additionally, Tajikistan did not have data from 2014 onwards, so the statistic provided is the average of the annual values between 2012 and 2013. Afghanistan, Guyana, Iraq, Suriname, Turkmenistan, and Yemen did not have available data on GNI per capita growth (annual %).

Source: Alkire, Kovesdi, Mitchell, et al. (2020).

3. COVID-19 AND MULTIDIMENSIONAL POVERTY

The global MPI 2020 data (Alkire, Kanagaratnam and Suppa, 2020) uses household surveys between 2009 and 2019, before the onset of the COVID-19 pandemic that has shaken the world. Few countries have been spared the devastation caused by the pandemic, which has had an impact not only on health systems but also on the world's economic and social systems. Widespread data are not yet available to gauge the full impact of the pandemic, especially its impact on levels of multidimensional poverty, but insights can be gleaned on the risk that the pandemic poses for poor people across IsDB Member Countries. This section briefly examines the risk profile of Member Countries, the data available on deaths to date, and some of the strategies and responses that countries have adopted to try and mitigate the risk of COVID-19 and its consequences.

3.1 THE RISK PROFILE OF ISDB MEMBER COUNTRIES

The global MPI can be used to identify populations at higher risk of COVID-19, using three of the indicators that lead to increased risk.[18] Alkire, Dirksen, et al. (2020a) outline the reasons behind the selection of these indicators – nutrition is selected because 'undernutrition is strongly associated with weakened immune systems, morbidity, and mortality', drinking water is selected because 'unsafe drinking water is associated with much of the global disease burden and weakened immune systems', and cooking fuel is selected because 'deprivation in clean cooking fuel is associated with indoor air pollution and acute respiratory infections'. The analysis profiles those individuals within a country who are at risk – defined as those deprived in at least one of the indicators – and those who are at high risk as they are deprived in all three indicators at the same time.

Table 4 details the proportion of a country's total population who are at risk or at high risk.[19] Given the uncensored headcount ratios identified previously, it is unsurprising that almost the entire population in Mali (99.3%) and Niger (99.2%) are at risk. In 12 countries, all in sub-Saharan Africa, more than 9 out of every 10 people are at risk. Countries with the lowest levels of their population at risk were Kazakhstan (10.0%), Tunisia (8.6%) and Jordan (4.6%). Looking at the proportion of the population that is at high risk – that is, they are deprived in all three indicators of nutrition, drinking water and cooking fuel – approximately one out of every three people in Niger (35.4%) and Chad (32.2%) are at high risk. One out of every four people are at high risk in Mozambique (26.2%), while one out of every five are at high risk in Guinea (19.9%) and Benin (19.6%). In contrast, in 16 of the IsDB Member Countries less than 1% of the total population were at high risk.

Table 4 also shows the proportion of the population who are MPI poor and at risk or high risk. Reflecting the differences between censored and uncensored headcounts on the individual indicators, the proportion of people who are MPI poor and at risk is lower than the proportion of the general population who are just at risk. In Bangladesh, for example, 83.9% of the population are at risk as they were deprived in at least one of the three indicators. However, less than a quarter (24.0%) of the population are MPI poor and at risk, indicating that the presence of multiple overlapping deprivations is not as common as it is, for example, in Niger where 99.2% of the population are at risk, and 90.3% are at risk and MPI poor.

As of 15 April 2021, the global death toll from the COVID-19 pandemic is nearing 3 million people (Worldometer, 2021). Six of the ten countries with the highest number of deaths are high-income countries (World Bank, 2020) and account for more than half of all deaths worldwide. Across the IsDB Member Countries, there have been over 150,000 recorded deaths due to COVID-19, with Indonesia, Pakistan, Iraq, and Egypt reporting the highest number of deaths (Worldometer, 2021).

Responses to the pandemic have also varied from country to country. During the course of 2020, Gentilini et al. (2020) tracked governments' responses across a range of different social protection measures and jobs responses,[20] according to three different categories: social assistance (including cash-based transfers, public works programmes and in-kind support); social insurance (including unemployment, pension and disability benefits)

Table 4. MPI and COVID-19 risk in IsDB Member Countries

Country	At risk (%)	At high risk (%)	MPI poor and at risk (%)	MPI poor and at high risk (%)
Albania	42.6	0.1	0.6	0
Algeria	25	0	1.7	0
Bangladesh	83.9	0.5	24	0.5
Benin	96.7	19.6	66.7	19.5
Burkina Faso	97.1	22.6	83.7	22.6
Cameroon	85.5	15.5	45	14.8
Chad	97.9	32.2	85.4	32.2
Comoros	87.7	9.7	37	9.1
Côte d'Ivoire	75.9	9.7	45.1	9.6
Gabon	39.7	3.3	14.4	3.2
Gambia	97.4	8.3	41.5	8
Guinea	98.5	19.9	66.1	19.5
Guinea-Bissau	98.5	14.7	66.9	14.7
Guyana	16.2	0.9	3	0.9
Iraq	14.4	0	5.3	0
Jordan	4.6	0	0.2	0
Kazakhstan	10	0	0.5	0
Kyrgyzstan	34.4	0.6	0.4	0.1
Libya	48.1	0	1.7	0
Maldives	31.4	0	0.7	0
Mali	99.3	15.7	68.2	15.5
Mauritania	78.4	14.1	49.1	14
Morocco	34.9	1.7	15.8	1.7
Mozambique	97.1	26.2	72.4	26.1
Niger	99.2	35.4	90.3	35.4
Nigeria	88.2	18.3	46.3	17.7
Pakistan	69.3	5.7	37.1	5.3
State of Palestine	43.4	0.1	0.9	0
Senegal	78.8	11.4	52.1	11.1
Sierra Leone	98.7	13.9	57.8	13.8
Sudan	74.2	16.8	51.1	16.7
Suriname	11.4	0	2.1	0
Syria	25.7	0	5.3	0
Tajikistan	53.6	2	7.2	1.7
Togo	93.3	10.2	37.5	10
Tunisia	8.6	0	0.5	0
Turkmenistan	26.3	0	0.4	0
Uganda	98.7	21.6	55	21.4
Yemen	76.5	14.3	46.4	14.2

Source: Alkire, Dirksen, et al. (2020c).

and labour markets (such as wage subsidies and training support).

There are 135 measures recorded across the 41 Member Countries for which there are data.[21] Table 5 details how social assistance transfers are the most widely used class of measure (accounting for approximately three-quarters of all measures, or 98 types). These are complemented by marked action in social insurance (30 measures) and limited labour market-related measures (seven in total). Among the social assistance measures, cash transfer measures are the most widely used safety net intervention by governments. Thirty-five Member Countries had such measures in place, with 30 countries having some form of in-kind food assistance or school feeding schemes.

Some countries have been able to use their MPI data to improve their COVID-19 response policies and interventions. These data may also be useful as countries begin to build back and develop equitable recovery strategies.

Table 5. Social protection and jobs responses to COVID-19 in IsDB Member Countries

	SOCIAL ASSISTANCE				SOCIAL INSURANCE				LABOUR MARKETS			
Country	Cash-based transfers	Public works	In-kind (in-kind/school feeding)	Utility and financial support	Paid leave / unemployment	Health insurance support	Pensions and disability benefits	Social security contributions (waiver/ subsidy)	Wage subsidy	Activation (training)	Labour regulation adjustment	Reduced work time subsidy
Afghanistan	√		√	√								
Albania	√		√	√	√		√		√			
Algeria	√		√		√		√	√				
Bangladesh	√		√						√			
Benin	√			√								
Burkina Faso	√		√	√								
Cameroon	√			√			√	√				
Chad				√								
Comoros	√											
Côte d'Ivoire	√		√	√		√						
Egypt	√		√	√	√		√		√			
Gabon			√	√								
Gambia	√		√	√								
Guinea	√	√	√	√								
Guinea-Bissau			√	√								
Guyana	√			√								
Indonesia	√	√	√	√		√		√		√		
Iraq	√		√	√	√							
Jordan	√		√		√			√	√			
Kazakhstan	√		√	√		√						
Kyrgyzstan	√		√	√				√				
Libya			√									

Table 5. Social protection and jobs responses to COVID-19 in IsDB Member Countries, continued

	SOCIAL ASSISTANCE				SOCIAL INSURANCE				LABOUR MARKETS			
Country	Cash-based transfers	Public works	In-kind (in-kind/school feeding)	Utility and financial support	Paid leave / unemployment	Health insurance support	Pensions and disability benefits	Social security contributions (waiver/ subsidy)	Wage subsidy	Activation (training)	Labour regulation adjustment	Reduced work time subsidy
Maldives				√	√				√			
Mali	√		√	√								
Mauritania	√		√	√								
Morocco	√		√	√	√	√		√	√			
Mozambique	√				√			√				
Niger	√		√	√								
Nigeria	√	√	√	√								
Pakistan	√		√	√								
Senegal			√	√								
Sierra Leone	√		√									
Sudan	√		√									
Suriname	√				√							
Syria	√		√	√	√							
Tajikistan	√			√								
Togo	√			√								
Tunisia	√		√		√	√	√	√				
Turkmenistan	√											
Uganda	√	√	√	√				√				
Yemen	√		√									

Source: Gentilini et al. (2020).

4. CONCLUDING REMARKS

The first quarter of 2021 continues to reveal the devasting and multifaceted nature of the global COVID-19 pandemic. Without proper attention to the impacts of this public health crisis and the varied conditions among poor people, governments risk jeopardising the last two decades' progress towards eradicating poverty. Governments and policymakers need more information to cope with the multidimensional effects of the pandemic, to act against its adverse consequences, and to protect and improve the lives of the most deprived. To this end, this brief has synthesised data on where IsDB Member Countries stand in terms of poverty levels and trends, so as to better understand the way ahead.

The case of Mauritania is a good closing example for several reasons. On the one hand, more than half of Mauritania's population was living in multidimensional poverty according to the most recent information from 2015. Mauritania also has stark differences between the MPI of its urban and rural populations (0.117 and 0.391, respectively), and the incidence of poverty among its subnational regions varies from as little as 7.4% in Tiris Zemmour to 75.0% in Guidimaka. On the other hand, Mauritania illustrates the progress possible in turning the tide of poverty dynamics. Between 2011 and 2015, Mauritania's reduction in its MPI was the second largest among IsDB Member Countries (an annualised absolute rate of -0.024 per year), as well as for incidence (an annualised absolute rate of -3.1per year), and it led the way in reductions in intensity (an annualised absolute rate of -1.3 per year). Despite its inequalities, Mauritania managed to become a global leader in poverty reduction, illustrating that progress is feasible despite high and generalised initial levels of poverty.

These findings reveal a very heterogeneous experience of acute multidimensional poverty. This brief shows that as the COVID-19 pandemic risks reversing hard-won advances in poverty reduction, better data can improve decision-making in a context of limited fiscal resources. For example, information on overlapped deprivations analysed in this brief may help to set some principles for identifying those who are most prone to the severest adverse effects of the pandemic. This information, in line with Sustainable Development Goal Target 1.5, could serve as a guide for countries to create tailored policies at subnational levels. For instance, as in the case of Mauritania, where 78.4% of the population are at risk (without either appropriate nutrition, drinking water, and cooking fuel), even as only 49.1% of that figure are also MPI poor. To build back better in the wake of COVID-19, evidence-driven policymaking must centre the diverse and multidimensional realities of poor people globally or else risk losing the gains of the first two decades of the twenty-first century.

ENDNOTES

1 For more details on the global MPI, see also the accompanying data tables in Alkire, Kanagaratnam, and Suppa (2020); and UNDP and OPHI (2020).

2 Afghanistan, Albania, Algeria, Bangladesh, Benin, Burkina Faso, Cameroon, Chad, Comoros, Côte d'Ivoire, Egypt, Gabon, Gambia, Guinea, Guinea-Bissau, Guyana, Indonesia, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Libya, Maldives, Mali, Mauritania, Morocco, Mozambique, Niger, Nigeria, Pakistan, the State of Palestine, Senegal, Sierra Leone, Sudan, Suriname, Syria, Tajikistan, Togo, Tunisia, Turkmenistan, Uganda, and Yemen.

3 In Afghanistan, Egypt and Indonesia, the MPI is computed using 9 of the 10 indicators. This is because in Afghanistan the survey did not collect information on nutrition, in Egypt it did not collect information on cooking fuel (Alkire et al. 2018), and in Indonesia it did not gather information on nutrition (Alkire, Kanagaratnam, and Suppa, 2020).

4 This is because one criterion for subnational disaggregation establishes that the national poverty headcount ratio (H) and the MPI must be large enough (H more than 1.5% and MPI greater than 0.005) to allow for a meaningful subnational analysis, and Maldives does not meet this (Alkire, Kanagaratnam, and Suppa 2020).

5 Like with the global MPI, we do not have trend data on the other IsDB Member Countries: Azerbaijan, Bahrain, Brunei, Djibouti, Iran, Kuwait, Lebanon, Malaysia, Oman, Qatar, Saudi Arabia, Somalia, Turkey, the UAE, and Uzbekistan.

6 The harmonisation process is covered in greater detail in Alkire, Kovesdi, Mitchell, et al. (2020, sec.3).

7 All statistical significance is evaluated at the level of α=0.01, except for Burkina Faso, Guyana, Kazakhstan, and Pakistan, at α=0.05.

8 Absolute changes are easy to compare across countries and are key comparisons to make, but for countries with lower initial poverty levels, large absolute reductions are far more difficult to achieve (Figure 11). The annualised absolute rate of change is the difference in the relevant point estimate (e.g. MPI_T) between two periods, divided by the difference in the two time periods, whereas the annualised relative rate of change is the compound rate of reduction in the point estimate per year between the initial and the final periods. We can also look at annualised relative reductions to understand the changes in poverty for countries with low absolute poverty levels.

9 Albania, Burkina Faso, Chad, Iraq, Jordan, Kazakhstan, the State of Palestine, Sudan, Turkmenistan, Uganda, and Yemen could not be disaggregated by subnational region, as either: the survey reports established that the results were not representative at the subnational level; the national MPI_T estimate and poverty headcount ratio were not large enough (>0.005 and >1.5%, respectively) to enable disaggregation at the subnational level with meaningful estimates; or administrative changes in the subnational unit definitions between the two time periods were incomparable (Alkire, Kovesdi, Mitchell, et al., 2020).

10 Bangladesh, Chad, Egypt, Gambia, Iraq, Kazakhstan, Mali, Nigeria, Pakistan, Sudan, Tajikistan, and Turkmenistan.

11 Guyana, Mozambique, Sierra Leone, and Uganda.

ENDNOTES

12 Afghanistan, Albania, Burkina Faso, Côte d'Ivoire, Gabon, Guinea, Indonesia, Kyrgyzstan, Mauritania, Niger, Senegal, Togo, and Yemen.

13 Afghanistan, Albania, Bangladesh, Côte d'Ivoire, Egypt, Gabon, Gambia, Guinea, Guyana, Indonesia, Iraq, Kazakhstan, Kyrgyzstan, Mali, Mauritania, Mozambique, Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Sudan, Suriname, Tajikistan, Turkmenistan, Uganda, and Yemen.

14 Afghanistan, Indonesia, and Yemen's MPI_T values are computed using 9 of the 10 indicators, excluding nutrition, the Egypt MPI_T is computed using 9 of the 10 indicators, excluding cooking fuel, and the Suriname MPI_T is computed using 9 of the 10 indicators, excluding child mortality (Alkire, Kovesdi, Mitchell, et al., 2020).

15 Bangladesh, Gabon, Guinea, Indonesia, Mauritania, Mozambique, Niger, Sierra Leone, and Suriname.

16 Afghanistan, Suriname, and Turkmenistan do not have any data on US$1.90 a day incidence, and were therefore excluded from this analysis.

17 Bangladesh, Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Gabon, Gambia, Guinea, Guyana, Indonesia, Kazakhstan, Kyrgyzstan, Mauritania, Mozambique, Niger, Pakistan, Senegal, Sudan, and Togo.

18 See Alkire, Dirksen, et al. (2020a, 2020b, 2020c and 2020d) for more detail on the method and the analysis possible.

19 Afghanistan, Egypt and Indonesia have been excluded from this analysis as the survey in Afghanistan did not collect information on nutrition (Alkire and Robles, 2017), in Egypt it did not collect information on cooking fuel (Alkire and Robles, 2015), and in Indonesia it did not gather information on nutrition (Alkire, Kanagaratnam, and Suppa, 2020).

20 Data do not exist for the State of Palestine.

21 A measure, such as a cash-based transfer, could be made up of a number of different interventions or programmes.

REFERENCES

Alkire, S., Dirksen, J., Nogales, R., and Oldiges, C. (2020a). 'Multidimensional Poverty and COVID-19 Risk Factors: A Rapid Overview of Interlinked Deprivations Across 5.7 Billion People', OPHI Briefing 53, Oxford Poverty and Human Development Initiative.

Alkire, S., Dirksen, J., Nogales, R. and Oldiges, C. (2020b). 'Multidimensional Poverty and Vulnerability to COVID-19: A Rapid Overview of Disaggregated and Interlinked Vulnerabilities in Sub-Saharan Africa', OPHI Briefing 54, Oxford Poverty and Human Development Initiative.

Alkire, S., Dirksen, J., Nogales, R. and Oldiges, C. (2020c). 'Multidimensional Poverty and COVID-19 Risk Factors: A Rapid Overview of Interlinked Deprivations Across 5.8 Billion People', OPHI Briefing 53a, Oxford Poverty and Human Development Initiative.

Alkire, S., Dirksen, J., Nogales, R. and Oldiges, C. (2020d). 'Multidimensional Poverty and Vulnerability to COVID-19: A Rapid Overview of Disaggregated and Interlinked Vulnerabilities in Sub-Saharan Africa', OPHI Briefing 54a, Oxford Poverty and Human Development Initiative.

Alkire, S. and Foster, J. (2011). 'Counting and Multidimensional Poverty Measurement', *Journal of Public Economics*, vol. 95(7–8), pp. 476–87.

Alkire, S., Kanagaratnam, U. and Suppa, N. (2018). 'The Global Multidimensional Poverty Index (MPI): 2018 Revision', OPHI MPI Methodological Note 46, Oxford Poverty and Human Development Initiative.

Alkire, S., Kanagaratnam, U. and Suppa, N. (2020). 'The Global Multidimensional Poverty Index (MPI) 2020', OPHI MPI Methodological Note 49, Oxford Poverty and Human Development Initiative.

Alkire, S., Kovesdi, F., Mitchell, C., Pinilla-Roncancio, M. and Scharlin-Pettee, S. (2020). 'Changes over Time in the Global Multidimensional Poverty Index', OPHI MPI Methodological Note 50, Oxford Poverty and Human Development Initiative.

Alkire, S., Kovesdi, F., Scharlin-Pettee, S. and Pinilla-Roncancio, M. (2020). 'Changes over Time in the Global Multidimensional Poverty Index and other Measures: Towards National Poverty Reports', OPHI Research in Progress 57a, Oxford Poverty and Human Development Initiative.

Alkire, S., and Robles, G. 2015. 'Multidimensional Poverty Index 2015: Brief Methodological Note and Results', OPHI Briefing 31, Oxford Poverty and Human Development Initiative, Oxford University.

Alkire, S., and Robles, G. 2017. 'Global Multidimensional Poverty Index 2017', OPHI Briefing 47, Oxford Poverty and Human Development Initiative, Oxford University.

Gentilini, U., Almenfi, M., and Dale, P. (2020). *'Global Database on Social Protection and Jobs Responses to COVID-19 [database]*, version 14 (December 11, 2020) (last accessed: 15 April 2021).

Oxford Poverty and Human Development Initiative (OPHI). (2018). *Global Multidimensional Poverty Index 2018: The Most Detailed Picture to Date of the World's Poorest People*, Oxford: Oxford Poverty and Human Development Initiative.

UN Department of Economic and Social Affairs (UNDESA), Population Division. (2019). *World Population Prospects 2019: Highlights (ST/ESA/SER.A/423), Online Edition. Rev. 1 [database*]. New York: United Nations (last accessed: 28 April 2020).

UN Development Programme (UNDP) and Oxford Poverty and Human Development Initiative (OPHI). (2020). *Charting Pathways Out of Multidimensional Poverty: Achieving the SDGs*, New York: United Nations.

World Bank. (2021). 'World Development Indicators', last accessed: 12 March 2021.

World Bank. (2020). 'World Bank List of Economies (June 2020)', last accessed: 20 April 2021.

Worldometer. (2021). 'COVID-19 Coronavirus Pandemic', last accessed: 15 April 2021.