



OPHI BRIEFING 56 2020

Understanding Poverty in Africa

Ross Jennings and Christian Oldiges
Oxford Poverty and Human Development Initiative (OPHI), University of Oxford

This briefing¹ synthesises information from the 2020 global Multidimensional Poverty Index (MPI) with a focus on Africa.² It provides multidimensional poverty data for 48 African countries, covering 1.25 billion people living on the continent using household surveys fielded between 2010 and 2019.³ In addition, the 2020 global MPI also includes trend data for 37 African countries enabling a focus on how poverty is changing on the African continent.⁴

KEY FINDINGS

- 593 million people in Africa are MPI poor.
- Nine out of ten people in Niger and South Sudan are poor.
- More than eight of ten living in Chad, Burkina Faso and Ethiopia are poor.
- Ethiopia and Nigeria have the largest number of poor people (91 million each).
- While six out of every ten people live in East or West Africa, these two regions account for seven out of every ten poor people.
- There are 35 subnational regions in which at least nine out of every ten people are poor.
- More than 80% of the continent's poor people live in rural areas.
- Children under the age of 18 make up 50% of the continent's population but almost 60% of poor people.
- 340 million poor children are under the age of 18; 225 million are under the age of 10.
- 36 of 37 African countries have seen significant decreases in levels of MPI poverty in recent years.
- The fastest annualized absolute reductions in poverty are seen in Sierra Leone, Mauritania, Liberia, Guinea and Rwanda.

- With its dual focus on the incidence and intensity of poverty, the MPI is an appropriate measure for ensuring that no one is left behind in the fight against poverty.
- The MPI remains an important complementary measure to monetary poverty measures for broadening the understanding of poverty.
- The MPI has many uses as a policy tool as evidenced by its use for profiling those at risk during the COVID-19 pandemic.

The plight of the MPI poor in Africa: How are they poor?

Of the nearly 600 million MPI poor people on the continent:

- 567 million cook with firewood.
- § 510 million lack proper sanitation.
- 60 504 million occupy poor quality housing.
- 490 million cannot turn on a light bulb.
- 387 million drink water from unsafe sources.
- 343 million live in a household where at least one person is malnourished.

POVERTY IN AFRICA

How many are poor?

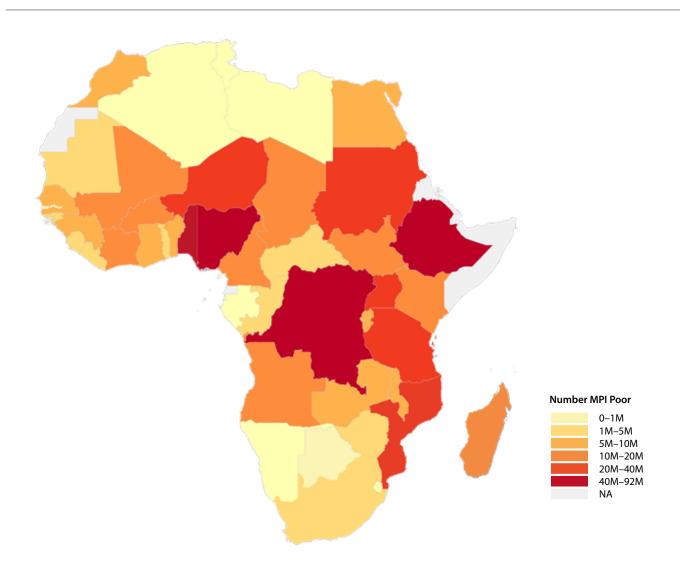
Of the 1.25 billion inhabitants of Africa for whom there are data, 593 million (47%) are MPI poor. Levels of poverty differ significantly across the continent. Approximately nine out of every ten citizens of Niger (90%) and South Sudan (92%) are poor. This is the case for half of those living in Angola (51%) or Mauritania (51%) and only one in four living in Zimbabwe (26%) or the Republic of the Congo (24%). Poverty levels are lowest in Tunisia (1%) and the Seychelles (1%).

With a population of almost 110 million, Ethiopia is the second most populous country in Africa, accounting for almost one in ten (9%) of the total population. Nigeria

has the largest population on the continent with a population of almost 200 million, representing 16% of the total population. Yet each country is home to 91 million poor people, and each accounts for 15% of Africa's poor population. Together with the Democratic Republic of the Congo (9% of poor people), Tanzania (5%) and Uganda (4%), these five countries are home to approximately half of poor people living in Africa.

Two of the continent's most populous countries – Egypt and South Africa – have relatively low levels of poverty. While these two countries account for 12% of Africa's total population, they are home to only 1% of all poor people.

Figure 1. Number of MPI poor by country



Source: Christian Oldiges using data published by Alkire, Kanagaratnam and Suppa.⁵

Where do impoverished Africans live?

From a regional perspective, West Africa is home to three out of every ten (30%) Africans, with a similar proportion living in countries in the East (28%). Southern Africa (14%) and North Africa (16%) together are also home to three out of every ten Africans, while the remaining 12% reside in countries in Central Africa. Is poverty distributed the same way?

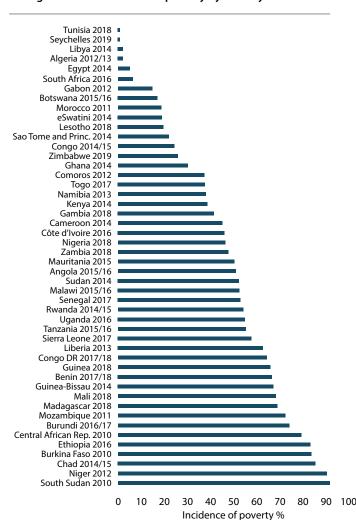
Poverty is more concentrated in East Africa, with almost four of every ten (38%) of the continent's poor people living in this region. Taken together with those in West Africa (33%), seven out of every ten poor individuals in Africa are living in one of these regions. In contrast, only 3% of the continent's poor people are in countries in North Africa.

Table 1. MPI poverty by region of Africa

Region	Pop. share (%)	Share of poor people (%)	Number of poor people (millions)	MPI	Incidence (H) %	Intensity (A) %
East Africa	28	38	223	0.343	63.4	54.2
West Africa	30	33	198	0.293	52.7	55.6
Central Africa	12	16	93	0.335	62.5	53.6
Southern Africa	14	11	64	0.188	36.5	51.5
North Africa	16	3	15	0.033	7.6	43.3

Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

Figure 2. Incidence of MPI poverty by country



Source: Alkire, Kanagaratnam and Suppa (2020).

every ten people living in South Sudan and Niger are poor. This was true of more than eight out of every ten people in Chad, Burkina Faso and Ethiopia. At the other end of the scale, there are six countries where less than one in ten people are living in poverty: Tunisia has the lowest incidence of poverty followed by Seychelles, Libya, Algeria, Egypt and South Africa.

The incidence (also known as H) of poverty varies significantly across the regions. Approximately three fifths of people living in East Africa or Central Africa were poor. This is the case for approximately half of those living in West Africa and a third of those in Southern Africa. Less than one in ten residents of countries in North Africa are poor. The intensity (known as A) of poverty also varied from 43% in North Africa to 56% in West Africa.

As one would expect, the incidence of poverty also var-

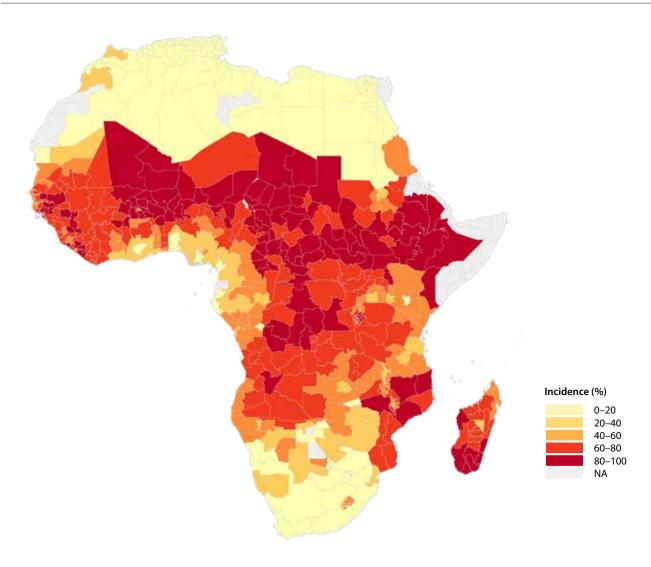
ies significantly across countries. More than nine out of

Figure 3 shows the proportion of MPI poor people in each subnational region; in dark red are those regions of extremely high levels of MPI poverty. Across the 578 subnational regions for which there are data, the region with the highest proportion of MPI poor people is Wadi Fira in Chad, with an incidence of 99%. Chad has eight regions where the incidence of poverty is greater than 97%. In total, there are 35 subnational regions in which at least 90% of the people are MPI poor and 116 regions where 80% or more are poor.⁷ Over 220 million poor people are living in these regions of highly concentrated poverty, accounting for more than a third of Africa's poor people.

The dark red areas of the map identify a long corridor of high MPI poverty that stretches all the way from West Africa to the Horn of Africa in the East. From Timbuktu in Mali, via almost the entire Sahel, to Ethiopia, and covering nearly all of Burkina Faso, northern Benin, all but one region of Niger, several northern Nigerian regions, almost the entirety of Chad, huge parts of Sudan, nearly all regions of the Central African Republic, South Sudan, and northern Uganda, this belt of poverty transcends boundaries, languages and cultures.

Another cluster of high levels of poverty is visible across several regions of the Democratic Republic of the Congo. They stretch from the northern region of Nord Ubangi via the central region of Tshuapa, where 89% of the population is MPI poor, to regions bordering Angola, where up to 94% of the population is MPI poor in Kasai. Similar pockets of high levels of poverty can be seen in several regions in Mozambique and Madagascar.

Figure 3. Incidence of MPI poverty by subnational region



Source: Christian Oldiges using data published by Alkire, Kanagaratnam and Suppa (2020).

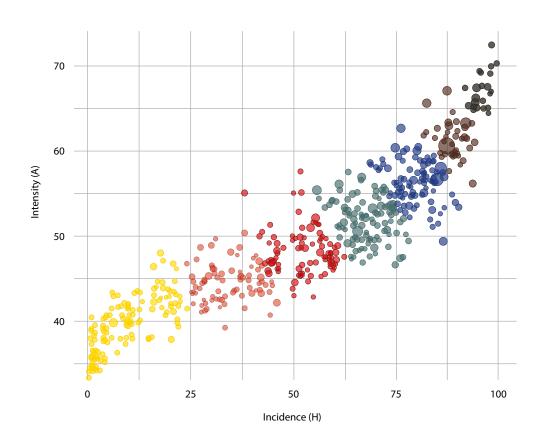
But a focus on the dark red regions of the map ignores the fact that many regions in Africa, while not as poor, still show very high levels of poverty. At least six out of every ten individuals are MPI poor in nearly half of all subnational regions on the continent, while the majority of inhabitants are poor in nearly 60% of all subnational regions.

Figure 4 plots the incidence of poverty on the horizontal axis and its intensity vertically for all subnational regions. It shows a disturbing correlation across the regions – as the incidence of poverty increases, in general, so does its intensity. What this means is that those regions to the right of the graph in brown and black not only have higher proportions of people who are poor, but the experience

of poverty for those people is more intense. Importantly, the MPI tracks both aspects, together.

Chad has ten of the 20 regions with the highest intensity of poverty – the highest is its region of Lac with an average intensity among the poor of 72%. It is therefore unsurprising that, at a subnational level, the highest MPI in Africa is the region of Lac in Chad, with an MPI of 0.711. There are 21 subnational regions with an MPI above 0.6. These regions are concentrated in just four countries – Chad (12), Niger (5), Burkina Faso (3) and Uganda (1).

Figure 4. Incidence (H) and intensity (A) of MPI poverty by subnational region



Note: Each bubble represents a subnational region and its size is proportionate to its number of MPI poor people.

Source: Christian Oldiges using data published by Alkire, Kanagaratnam and Suppa (2020).

Who is poor?

Young people bear the brunt of poverty. Across the continent as a whole, children (defined as anyone under the age of 18) are over-represented amongst the poor. Children aged 0 to 9 constitute 31% of the population but make up 38% of poor people. When combined with

Not only are levels of poverty highest amongst the younger cohorts, but the intensity of poverty is also more severe. On average, poor children aged 0 to 9 in Niger and South Sudan experience two thirds of all possible deprivations. This is the highest for any age group on the continent.

Table 2. MPI poverty by age group

Age group	Population share (%)	Share of poor people (%)	Number of poor people (millions)	MPI	Incidence (H)	Intensity (A)
0–9	31	38	225	0.323	57.7	56
10–17	18	19	115	0.27	49.8	54.2
18–59	44	37	220	0.209	39.8	52.6
60+	6	6	34	0.211	42.5	49.6

Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

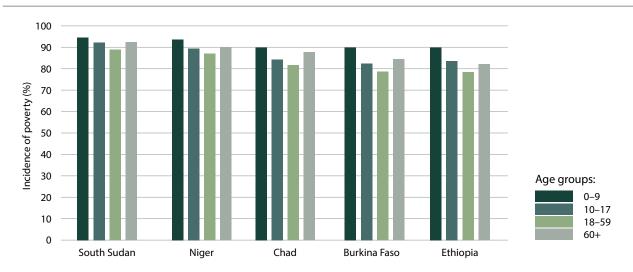
children aged 10 to 17, they constitute half (50%) of Africa's population but 57% of Africa's poor people. Three hundred and forty million African children under 18 are poor and 225 million are under the age of 10 - a clarion call for action.

As one would expect, levels of child poverty are highest amongst those countries in Africa with the highest levels of overall poverty. Nine out of every ten children aged 0 to 9 living in Ethiopia, Burkina Faso and Chad are poor while this proportion is even higher in Niger and South Sudan.

As a result, the MPIs for children aged 0 to 9 in Niger (0.627) and South Sudan (0.620) are also the highest for any age group.

With such high and prevalent levels of poverty in these countries, any poverty reduction initiatives are likely to benefit children. However, given that children are a particular target in the Sustainable Development Goals (SDGs), it is important that they are an integral part of any poverty reduction strategies. This is underscored by the fact that, apart from in Seychelles, which has very low

Figure 5. Highest incidence of MPI poverty by age group



Source: Alkire, Kanagaratnam and Suppa (2020).

0.600 Countries: SDN Sudan MRT Mauritania 0.500 MDG Madagascar SEN Senegal Ethiopia **ETH** 0.400 **BFA** Burkina Faso CMR Cameroon ΜPI 0.300 COD Congo, DR **COM Comoros** CIV Côte d'Ivoire 0.200 0.100 Age groups: 0-17 0.000 SDN MRT MDG SEN **ETH** BFA **CMR** COD COM CIV

Figure 6. Largest difference between children and adults in MPI (ranked from left to right in terms of difference)

Source: Alkire, Kanagaratnam and Suppa (2020).

levels of poverty according to the global MPI, in every country children are poorer than adults.

The country in which the gap between the MPI of children and adults is largest is Sudan; the ten countries with the largest gap (Figure 6) include both Ethiopia and Burkina Faso. Child-centred policies are required to close these gaps in the coming years.

Whether one lives in rural or urban areas in Africa also influences the likelihood of being poor. Six out of every ten (62%) Africans live in rural areas and yet these areas contain a disproportionate share of the poor. More than eight of every ten (83%) poor people in Africa live in rural areas, which translates into almost half a billion people. Still, 100 million poor people are to be found in urban areas on the continent.

The MPI for rural areas is 0.355 compared with only 0.095 for urban areas. This reflects the higher incidence of poverty in rural areas. While only a fifth (21%) of urban residents are poor, this is true of more than three fifths (64%) of rural residents. Not only is the incidence of poverty higher in rural areas but the average intensity of poverty among the poor is also higher – 56% for rural poor people as opposed to 46% for urban poor people (or, the rural poor are, on average, deprived in the equivalent of two additional living standards indicators).

Table 3. MPI poverty by area

Area	Population share (%)	Share of poor people (%)	Number of poor people (millions)	MPI	Incidence (H)	Intensity (A)	
Urban	38	17	98	0.095	20.6	46.4	
Rural	62	83	495	0.355	63.9	55.6	

Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

How are they poor?

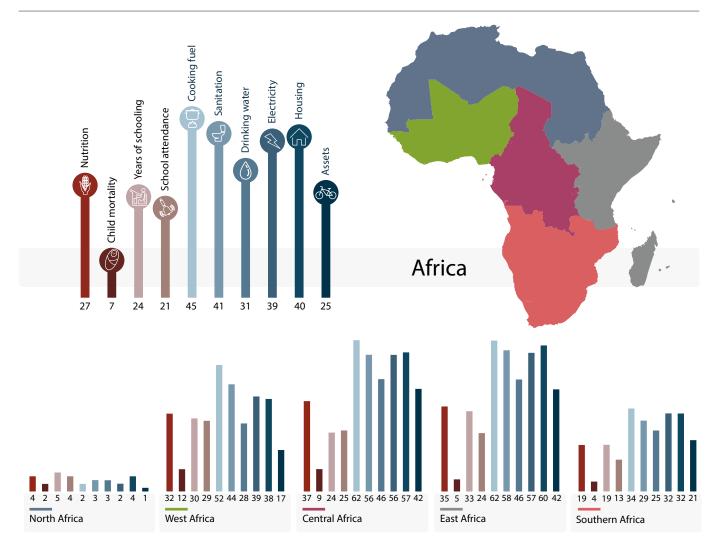
Looking at poverty through the lens of the MPI allows us to move beyond an understanding of how many people are poor and mapping where they are living. Importantly, the MPI enables a focus on how people are poor, providing evidence to support the intuition that poverty differs from household to household, country to country or region to region.

A focus on the indicators provides a more nuanced understanding of the poverty situation. The MPI is composed

Across Africa as a whole, the single largest deprivation is in solid cooking fuels with almost half (45%) of people living in a poor household that is not using clean fuels for cooking purposes. Two fifths of people on the continent live in poor households that use unimproved or shared sanitation or that occupy inadequate housing, with a similar proportion having no access to electricity.

As the regional graphs indicate, levels of deprivation in most of the living standards indicators are highest for

Figure 7. Proportion of the population who are MPI poor and deprived in each indicator in Africa and by region



Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

of ten indicators that capture the different disadvantages that define poverty. The censored headcount ratios give an initial look at levels of deprivation as they reflect the proportion of people who are poor and deprived in each of the indicators that make up the MPI.

those in East Africa and Central Africa. The population of West Africa shows the highest level of being poor and deprived in child mortality and school attendance. Reflecting the lower levels of poverty in North Africa as a whole, less than one in 20 people are poor and deprived across all ten of the indicators.

The censored headcount ratios, however, fail to reflect that the ten indicators of the global MPI are not equally weighted and are categorised across three dimensions – the conceptual groupings of the indicators – of health, education and living standards. To get to the heart of what is driving poverty in – and across – Africa, one needs to look at the weighted contributions that each indicator makes to the MPI (as the MPI value is always equal to the sum of the censored headcount ratio of each indicator multiplied by its weight).

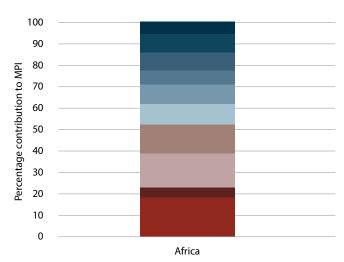
Across Africa as a whole, nutrition (18%) is the largest single contributor to the MPI, followed closely by the two education indicators of years of schooling (16%) and school attendance (14%).

Reflecting the levels of deprivation seen in the censored headcounts, cooking fuel (10%) was the biggest contributor of all indicators in the living standards dimension. Asset ownership and child mortality (5%) were the smallest contributors to MPI on the continent.

The actual contributions of each indicator to the MPIs of the five regions in Africa reveal both similarities and differences. The contributions of indicators to the MPIs of the two poorest regions – East and Central Africa – are similar, with only slight variations in child mortality and years of schooling. Despite a lower MPI in Southern Africa, the contributions of the indicators are almost identical to those in East Africa.

In contrast, child mortality contributes more to the MPIs of West Africa and North Africa than the other regions. Deprivations in school attendance and years of schooling are also the largest contributors in these two regions. The contributions of indicators in the living standards dimension are consequently lower in West Africa and particularly so in North Africa.

Figure 8. Percentage contribution of each indicator to MPI in Africa



Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

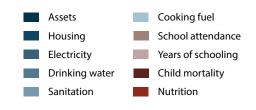
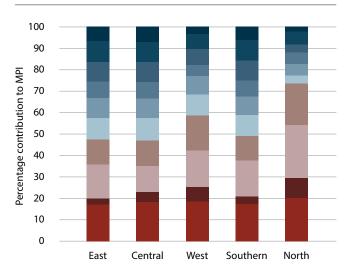


Figure 9. Percentage contribution of each indicator to MPI by region of Africa



Source: Authors' computations based on data published by Alkire, Kanagaratnam and Suppa (2020).

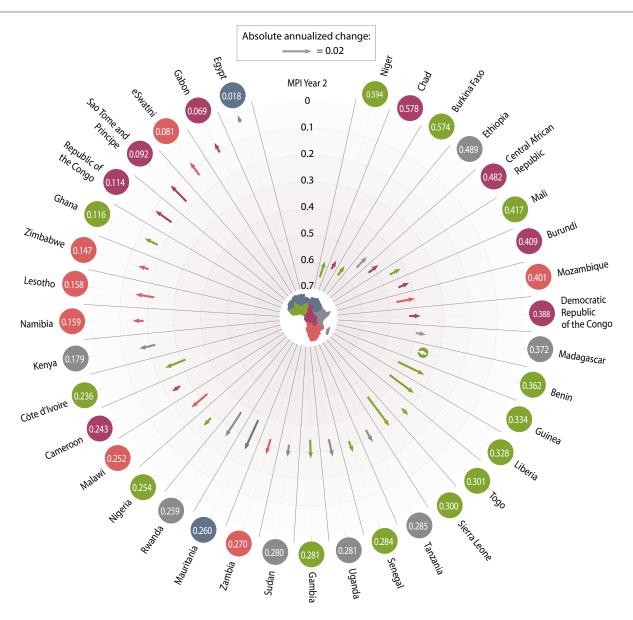
EXPLORING THE VALUE OF THE MPI

Monitoring changes over time

Data exist to explore how 37 countries across the African continent have fared with reducing levels of poverty across two time periods (the years and periods vary, so all comparisons are annualized). The graphic shows how all countries, except for Benin, have moved from higher

The countries are arranged around the perimeter according to their latest MPI value, from Egypt (0.018) and Gabon (0.069) at one end of the scale to Chad (0.578) and Niger (0.594) at the other end. The longest arrows show that the five countries with the greatest annualized reductions in MPI were Sierra Leone (0.027), Mauritania

Figure 10. Current MPI with recent absolute annualized change



Source: Bonny Jennings using data from Alkire, Kovesdi, Mitchell, Pinilla-Roncancio and Scharlin-Pettee (2020).

levels of poverty at the core to lower levels of poverty at the perimeter. The longer the arrow, the greater their absolute annualized change in the level of MPI from one period to the next. (0.024), Liberia (0.023), Guinea (0.023) and Rwanda (0.022). These countries all had MPIs in the range of 0.350 to 0.475 in their initial MPI score. Countries with either very high or very low levels of poverty showed much lower annualized reductions in their MPIs (more detail can be found in the Appendix).

Not only in Africa but across the world, Sierra Leone shows the fastest reduction in poverty of all 80 countries for which there were data. Sierra Leone managed to reduce its MPI from 0.409 to 0.300, and the proportion of people who are poor fell from three in four (74%) to three in five (58%). In terms of population figures, the actual number of poor people is down by over 700,000 to 4.4 million. This reduction is remarkable and is amplified by the fact that it took place from 2013 to 2017, a period that saw significant overlap with the Ebola pandemic that gripped the country from 2014 to 2016.

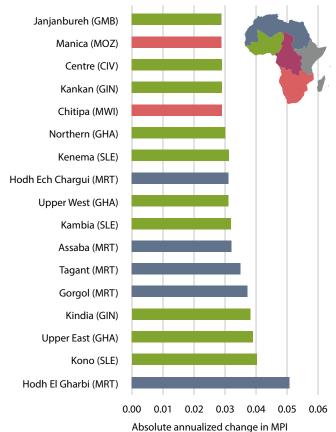
At a subnational level, 17 regions in Africa have faster annual reductions in their MPIs than Sierra Leone does at the national level. Hodh El Gharbi, a predominantly rural region in southern Mauritania on the border with Mali, has the fastest annualized reduction in MPI. In total, five of the best performing subnational regions are in Mauritania.⁹

Ten of the best performing regions are found in West Africa, drawn from the five countries of Sierra Leone (3), ¹⁰ Ghana (3), Guinea (2), Côte d'Ivoire (1) and Gambia (1). The remaining two regions that show large annualized reductions in their MPIs are in Southern Africa – Chitipa in Malawi and Manica in Mozambique.

Despite these successes in poverty reduction, the rate of population growth in many countries in Africa means that the actual number of poor people is not falling at the same pace as the incidence of poverty. According to the UN Department of Economic and Social Affairs' Population Division (2019), Africa has the highest rate of population growth of all continents. This has had a marked impact on the number of people who are poor.

Of the 36 countries in which there were reductions in the incidence of poverty, the number of poor people decreased in approximately half of the countries. There were reductions in 19 countries, although the decrease in Uganda was negligible. Kenya was most successful in moving large numbers of people out of poverty, as were Egypt and Côte d'Ivoire. However, in the other 17 countries where the incidence decreased, there were increases in the actual number of poor people due to population growth. Increases were particularly pronounced in the Democratic Republic of the Congo and Ethiopia.

Figure 11. Subnational regions with fastest absolute annualized change in MPI



Absolute annualized Change in MP

GMB Gambia

MOZ Mozambique

CIV Côte d'Ivoire

GIN Guinea

MWI Malawi

GHA Ghana

SLE Sierra Leone

MRT Mauritania

Source: Alkire, Kovesdi, Mitchell, Pinilla-Roncancio and Scharlin-Pettee (2020).

Complementing monetary poverty

Until recently, poverty has been commonly defined as a lack of money. This was encapsulated in the poverty target for the Millennium Development Goals, which used a monetary measure to track progress. However, those who are poor consider their experience of poverty more broadly across a range of different areas, many of which are captured by the indicators of the global MPI. The MPI has become an essential tool for reporting on the current SDGs.

Although both measures are seeking to explain poverty, they do so from different perspectives. As a result, they do not always find the same set of individuals to be poor – as a comparison of the incidence of poverty using the two different measures reveals. In South Sudan, Niger, Burkina Faso and Ethiopia the proportion of people who are poor according to the current money measure of \$1.90 per day is far less than those deemed poor by the MPI. In contrast, the proportion of poor people in Rwanda, Angola or Kenya is similar regardless of the measure used. Even when proportions are similar, however, it is often not the case that people who are monetary poor are the same people as those who are identified as MPI poor.

Figure 12. Comparing incidence of poverty of people who are MPI poor and \$1.90/day poor 100 MPI poor 90 \$1.90 per day Incidence of poverty (%) 80 70 60 50 40 30 20 0 Uganda Algeria CAF Benin Liberia Malawi Sudan Angola Zambia Kenya Togo Ghana South Africa Egypt Tunisia South Sudan **Burkina Faso** Ethiopia Mozambique Sierra Leone **Tanzania 3wanda** Mauritania Côte d'Ivoire Namibia Comoros Zimbabwe Cameroon Gambia Lesotho Sao Tome and Princ Source: Alkire, Kanagaratnam and Suppa (2020).

Figure 13. Absolute annualized change in incidence of MPI and \$1.90/day poverty 10 \$1.90 per day 5 Incidence of poverty (%) 0 -20 Ghana Chad Sierra Leone Liberia Niger Tome and Princ. Congo Malawi Zimbabwe Gabon Rwanda Mauritania -esotho Jganda anzania Gambia Zambia Mozambique Burundi Senegal Ethiopia Congo, DR Côte d'Ivoire Swatin Madagascaı Cameroor **Burkina Fas**e Source: Alkire, Kovesdi, Mitchell, Pinilla-Roncancio and Scharlin-Pettee (2020).

12

Changes in the levels of poverty according to the two measures can differ during the same time period. While there was similar reduction in both measures in Lesotho and eSwatini, a number of countries show an increase in monetary poverty while the proportion of MPI poor decreased. Monetary and multidimensional measures should not be seen as being in opposition to each other as both are important. Using both measures leads to a better understanding of poverty and allows for a more comprehensive response to the situation.

Leaving no one behind in Africa

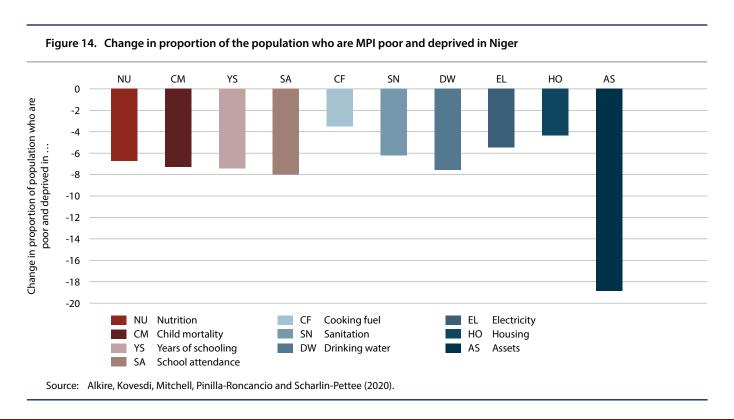
'Leave no one behind' has become the rallying call of the fight against poverty, particularly as it pertains to the realization of the 2030 Agenda for Sustainable Development and Agenda 2063. The MPI is uniquely positioned to monitor the progress of countries in their commitment to these international and continental goals and the pledge to first target those who are furthest behind.

Between 2006 and 2012, the population of Niger grew from 14 million to almost 18 million. During this same time period, the number of poor in the country also grew from 13 million to 16 million. This saw the incidence of poverty remain at significantly high levels – nine out of every ten (90%) people were poor in 2012, down from 93% in 2006 – with Niger showing one of the smallest rates of change in poverty incidence on the continent.

Focusing only on the incidence of poverty, however, is limiting as other changes to the situation of poverty remain hidden. An analysis of the other component of the MPI – the intensity of poverty – reveals a different story. The data show that the intensity of poverty in Niger went down substantially from 72% to 66%, one of the largest decreases across the continent. This change is also reflected in the decrease in the MPI from 0.668 to 0.594.

The intensity of poverty reflects the average share of weighted deprivations that poor people experience. In Niger, significant decreases were seen in the levels of deprivation for all ten indicators of the MPI among poor people.

The MPI and its component elements allow one to see not only changes in the levels of poverty, but also changes in the intensity or deprivation load of poverty that poor people experience. The tracking of both elements underpins efforts to truly leave no one behind in the fight against poverty on the African continent.



Using the MPI in Africa

An MPI is more than just a measure of poverty. While it contributes significantly to our understanding of poverty and the multiple overlapping deprivations that poor people experience, its added value lies in its ability to shape responses to the specific situations of poor people. When used as a policy tool, it can help shape and guide policy interventions, assist in the targeting of those interventions to areas or groups in real need and help in the allocation of resources to those who need them most.

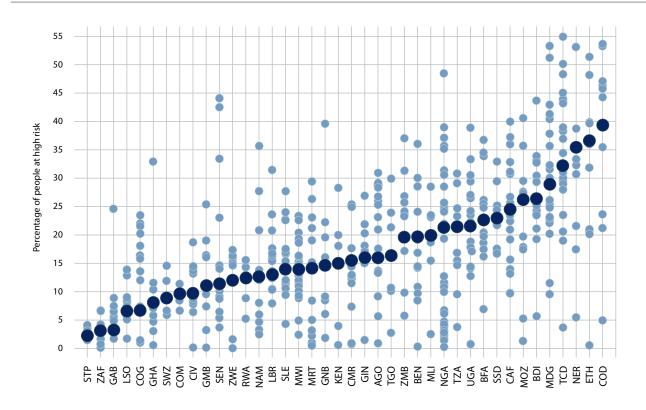
An MPI can also help with emergency responses during a national or global crisis. At the outset of the COVID-19 pandemic, OPHI produced a report detailing where in sub-Saharan Africa people were likely to be at increased risk of infection. The form the ten indicators of the global MPI, three indicators – nutrition, drinking water and cooking fuel – were chosen as COVID-19 risk indicators as deprivations in these indicators were likely to leave people more vulnerable to the virus. People were deemed at risk if they experienced a deprivation in at least one of the indicators and were considered at high risk if they were deprived in all three indicators.

KEY FINDINGS ABOUT COVID-19 RISK FACTORS AND MULTIDIMENSIONAL POVERTY

- Nine out of ten (89%) people in sub-Saharan Africa were at risk.
- One out of five (22%) were at high risk.
- National strategies need to be cognisant of differences across subnational regions.
- Regional strategies, such as focusing on clusters of high-risk areas that span national borders, are essential.

Changes in the MPI can also be used to monitor how countries are doing in their efforts to reduce poverty. When examining progress toward the SDG target of at least halving the proportion of people living in poverty in all its dimensions by 2030, the global MPI report found that of the 18 countries globally that were off track, 15 were in Africa. In addition, seven African countries were on track according to some models and the remaining 15 were on track across all models. The COVID-19 pandemic is likely to have had a profound impact on this progress. Significant efforts and resources will be required to regain lost ground.

Figure 15. Percentage of people at high risk at the country and subnational level



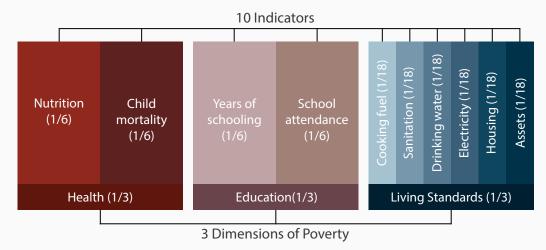
STP Sao Tome and Principe CMR Cameroon Country ZAF South Africa GIN Guinea Subnational regions GAB Gabon AGO Angola LSO Lesotho TGO Togo COG Congo, Republic of the ZMB Zambia GHA Ghana BEN Benin SWZ eSwatini MLI Mali COM Comoros NGA Nigeria Tanzania CIV Côte d'Ivoire TZA GMB Gambia UGA Uganda SEN Senegal BFA Burkina Faso Zimbabwe ZWE SSD South Sudan RWA Rwanda CAF Central African Republic NAM Namibia MOZ Mozambique LBR Liberia BDI Burundi SLE Sierra Leone MDG Madagascar MWI Malawi TCD Chad MRT Mauritania NER Niger **GNB** Guinea-Bissau ETH Ethiopia KEN COD Congo, Democratic Republic of the Kenya

Note: Population figures are computed based on 2017 UN DESA population estimates.

Source: Alkire, Dirksen, Nogales and Oldiges (2020).

APPENDIX ABOUT THE GLOBAL MPI

Grounded in the capability approach of Amartya Sen, the global MPI was developed by the Oxford Poverty and Human Development Initiative (OPHI) at the University of Oxford as an international measure of acute MPI poverty covering over 100 developing countries. It complements traditional monetary-based poverty measures by capturing the acute deprivations that each person faces at the same time using ten indicators across the three dimensions of education, health and living standards.



Source: OPHI (2018).

Each dimension is equally weighted, and the indicators within each dimension are equally weighted as well. A person who is deprived in a third or more of the weighted indicators is defined as MPI poor. There are three distinctive statistics that are used to report on MPI poverty. These are:

- The incidence or headcount ratio of poverty (H), which is the percentage of people who are MPI poor.
- The intensity of poverty (A), which reflects the average share of weighted deprivations that poor people experience.
- The MPI or adjusted headcount ratio (calculated as a product of H and A), reflecting 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 A. Changes in MPI Statistics

Country	MPI Data Source		Multidimensional Poverty Index (MPI _T)		Headcount Ratio (H _T)		Intensity of Poverty (A ₁)		Number of MPIT Poor People (thousands)	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Benin	2014	2017/18	0.346	0.362	63.2	66	54.7	54.9	6,504	7,580
Burkina Faso	2006	2010	0.607	0.574	88.7	86.3	68.4	66.5	12,272	13,469
Burundi	2010	2016/17	0.464	0.409	82.3	75.1	56.4	54.4	7,140	8,131
Cameroon	2011	2014	0.258	0.243	47.7	45.5	54.2	53.5	9,966	10,312
Central African Republic	2000	2010	0.574	0.482	89.6	81.5	64	59.2	3,261	3,574
Chad	2010	2014/15	0.6	0.578	90	89.4	66.7	64.7	10,759	12,613
Congo, DR	2007	2013/14	0.439	0.388	77.6	73.7	56.6	52.6	45,363	54,383
Congo, Rep. of the	2005	2014/15	0.258	0.114	53.8	24.7	48	45.9	1,947	1,200
Côte D'Ivoire	2011/12	2016	0.31	0.236	58.9	46.1	52.7	51.2	12,687	10,975
Egypt	2008	2014	0.032	0.018	8	4.9	40.1	37.6	6,375	4,412
eSwatini	2010	2014	0.13	0.081	29.3	19.2	44.3	42.3	312	210
Ethiopia	2011	2016	0.545	0.489	88.4	83.5	61.6	58.5	79,640	86,523
Gabon	2000	2012	0.145	0.069	30.9	15.5	47	44.7	379	271
Gambia	2005/06	2013	0.387	0.281	68	54.7	56.9	51.4	1,083	1,073
Ghana	2011	2014	0.149	0.116	31.1	26.2	47.9	44.3	7,904	7,125
Guinea	2012	2016	0.421	0.334	71.3	61.6	59.1	54.2	7,590	7,229
Kenya	2008/09	2014	0.247	0.179	52.2	38.9	47.3	46	21,370	18,157
Lesotho	2009	2014	0.229	0.158	49.8	35.9	46.1	44.1	991	733
Liberia	2007	2013	0.464	0.328	81.6	63.9	56.9	51.3	2,827	2,715
Madagascar	2008/09	2018	0.433	0.377	75.7	68.1	57.2	55.4	15,569	17,886
Malawi	2010	2015/16	0.339	0.252	68.1	54.2	49.8	46.5	9,908	9,333
Mali	2006	2015	0.501	0.417	83.7	73	59.9	57.2	11,057	12,733
Mauritania	2011	2015	0.357	0.26	63	50.5	56.7	51.5	2,268	2,045
Mozambique	2003	2011	0.516	0.401	84.3	71.2	61.2	56.3	16,305	17,216
Namibia	2006/07	2013	0.205	0.159	43	35.4	47.7	45	862	791
Niger	2006	2012	0.668	0.594	92.9	89.9	71.9	66.1	13,141	15,992
Nigeria	2013	2018	0.287	0.254	51.3	46.4	55.9	54.8	88,186	90,919
Rwanda	2010	2014/15	0.357	0.259	70.2	54.4	50.8	47.5	7,050	6,184
Sao Tome and Principe	2008/09	2014	0.185	0.092	40.7	22.1	45.4	41.7	72	43
Senegal	2005	2017	0.382	0.284	64.3	52.5	59.4	54	7,129	8,102
Sierra Leone	2013	2017	0.409	0.3	74.1	58.3	55.3	51.5	5,084	4,364
Sudan	2010	2014	0.317	0.28	57	52.4	55.5	53.4	19,691	19,889
Tanzania	2010	2015/16	0.342	0.285	67.8	57.1	50.5	49.8	30,047	30,302
Togo	2010	2013/14	0.316	0.301	57.5	55.3	54.9	54.5	3,693	3,949
Uganda	2011	2016	0.349	0.281	67.7	57.2	51.5	49.2	22,672	22,672
Zambia	2007	2013/14	0.349	0.27	65.9	54.6	53	49.4	8,234	8,410
Zimbabwe	2010/11	2015	0.176	0.147	40.1	34	43.8	43.3	5,173	4,691

Source: Alkire, Kovesdi, Mitchell, Pinilla-Roncancio and Scharlin-Pettee (2020).

REFERENCES

Alkire, S., Dirksen, J., Nogales, R. and Oldiges, C. (2020). '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, University of Oxford.

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, University of Oxford.

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, University of Oxford.

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, University of Oxford.

Alkire, S., Nogales, R., Quinn, N.N. and Suppa, N. (2020). 'On track or not? Projecting the global Multidimensional Poverty Index', OPHI Research in Progress 58a, Oxford Poverty and Human Development Initiative, University of Oxford.

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

UN Department of Economic and Social Affairs (UNDESA), Population Division. (2019). World Population Prospects 2019: Highlights (ST/ESA/SER.A/423), New York: United Nations.

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.

LINKS TO ONLINE RESOURCES

- OPHI Global MPI Country Briefings web page.
- Multidimensional Poverty Peer Network website.
- OPHI and COVID-19 research web page.

ENDNOTES

- 1 The analysis in this briefing is based on the global MPI 2020 data published by Alkire, Kanagaratnam and Suppa (2020). The grouping of African countries applied in this briefing is in line with the mandate and membership of the African Union, UNECA and the Pan African vision of Agenda 2063. This deviates slightly from the world region classifications used in the global MPI, in which 42 of the 48 African countries are categorised as being in sub-Saharan Africa and six in Arab States.
- 2 For details on the global MPI, see Alkire, S., Kanagaratnam, U. and Suppa, N. (2020) and its accompanying data tables and UNDP and OPHI (2020).
- 3 The 2020 global MPI does not provide data for Cabo Verde, Djibouti, Equatorial Guinea, Eritrea, Mauritius, Sahrawi Arab Democratic Republic and Somalia due to survey data being unavailable for this timeframe.
- 4 For details on changes over time, see Alkire, S., Kovesdi, F., Mitchell, C., Pinilla-Roncancio, M. and Scharlin-Pettee, S. (2020) and Alkire, S., Kovesdi, F., Scharlin-Pettee, S., and Pinilla-Roncancio, M. (2020).
- 5 The mapping style in Figure 1 and Figure 3 is inspired by Ayush Patel. The underlying shape files are from the *Spatial Data Repository* and *GADM Data*.
- The countries in each region are according to the African Union classification, available at the *African Union Member States* website.
- 7 In addition to those countries not covered by the 2020 global MPI, there are no subnational data available for Seychelles, South Africa and South Sudan. For South Africa and South Sudan, only national estimates are used.
- 8 Due to high sample loss, subnational disaggregation was not possible for South Sudan. With the highest headcount ratio globally (91.9%), one can assume that many of the subnational regions have high headcount ratios.
- 9 One of the regions, Tagant, saw a decrease in overall population during the period under review and it is possible that a large number of poor people left this rural area in search of opportunities elsewhere.
- 10 Alkire, Kovesdi, Scharlin-Pettee and Pinilla-Roncancio (2020) note that in the region of Kono in Sierra Leone, high sample drop in the second year, likely due to implausible anthropometric estimates and missing information on child mortality, was a significant contributor to the reduction in MPI.
- 11 More information is available on the OPHI Covid-19 webpage.
- 12 For details on the projections using global MPI data, see UNDP and OPHI (2020) and Alkire, S., Nogales, R., Quinn, N.N. and Suppa, N. (2020).

OXFORD POVERTY AND HUMAN DEVELOPMENT INITIATIVE

University of Oxford 3 Mansfield Road, Oxford, OX1 3TB. ophi@qeh.ox.ac.uk www.ophi.org.uk



