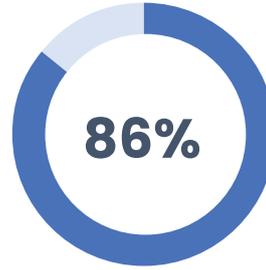# CHAPTER 4.

## THE NEXUS OF POVERTY, RISK AND VULNERABILITY

# EXTREME POVERTY

## NIGERIA & DRC

*will account for more than half of Africa's poor people*
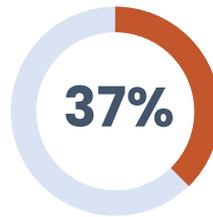
**86%**

*of the world's people living in extreme poverty will be in Africa (by 2030)*
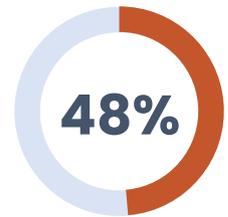
# MULTIDIMENSIONAL POVERTY

**58%**

*of people in the region who live in multidimensional poverty deprived in all three dimensions of health, education and living standards*

**37%**

*live in households where at least one person is malnourished*

**48%**

*lack access to safe drinking water*

# VULNERABILITY

**50.2%**

*of the people in Africa most vulnerable to staying in poverty live in*

**East Africa**

**60.3%**

*live in*

**low-income countries**

**58 million** *are extremely vulnerable to falling into poverty*

# Key Messages

**1.** The main message of the 2021 *Economic Report on Africa* is that most poor people move in and out of poverty because of consumption volatility arising from both exposure to and inadequate ability to manage uninsured risks, which together lead to vulnerability, or an expectation of adverse consequences in the future.

**2.** An estimated 51 million people in Africa could fall into poverty because of the COVID-19 pandemic. Today's non-poor households may be tomorrow's poor households, and efforts to reduce poverty in the future need to target households that are already poor as well as non-poor households that can be prevented from falling into poverty.

**3.** The overall economic impact of the COVID-19 pandemic on individual consumption and well-being depends on the size, duration and frequency of the risk; exposure to the risk; and ability to manage the risk.

**4.** For more than 61 million people whose mean consumption is $1.90–$2.09 in purchasing power parity terms a day (0–10 per cent above the extreme poverty line), the gains of the last decade are likely to be reversed. These people may fall into poverty, especially those in Ethiopia and Nigeria.

**5.** Countries with low dependency ratios (as in developed countries), a highly educated labour force, the capacity to generate jobs and high-quality internet infrastructure to support a digital economy are likely to experience low poverty and reduced vulnerability, suggesting a strong ability to manage risks. The opposite is the case for countries without these critical attributes.

# PROGRESS IN POVERTY REDUCTION IN AFRICA: A MIXED PICTURE

Despite strong economic growth in most African countries since the early 2000s, the pace of poverty reduction has been far slower than in other regions of the world (figure 4.1). The true poverty incidence in Africa is a controversial issue, with competing views centred around the use of household surveys or national accounts (Deaton, 2005). The approach used by the World Bank (and others) draws distributional information and average welfare (per capita income or per capita consumption) from household budget surveys to compute income-based poverty. In contrast,

Bhalla (2002) for India and Pinkovskiy and Sala-i-Martin (2013, 2014) for Africa argue that survey-based methods overstate initial poverty and understate the pace at which it has declined. Based on mean income drawn from national accounts, initial poverty in Africa in 1990 was about 34 per cent and declined steadily to about 21 per cent in 2021—or almost 2 per cent a year. Under both methods, extreme poverty in Africa is a major challenge that the COVID-19 pandemic has exacerbated.

## Figure 4.1 Extreme poverty rates, by global region, 1990–2018
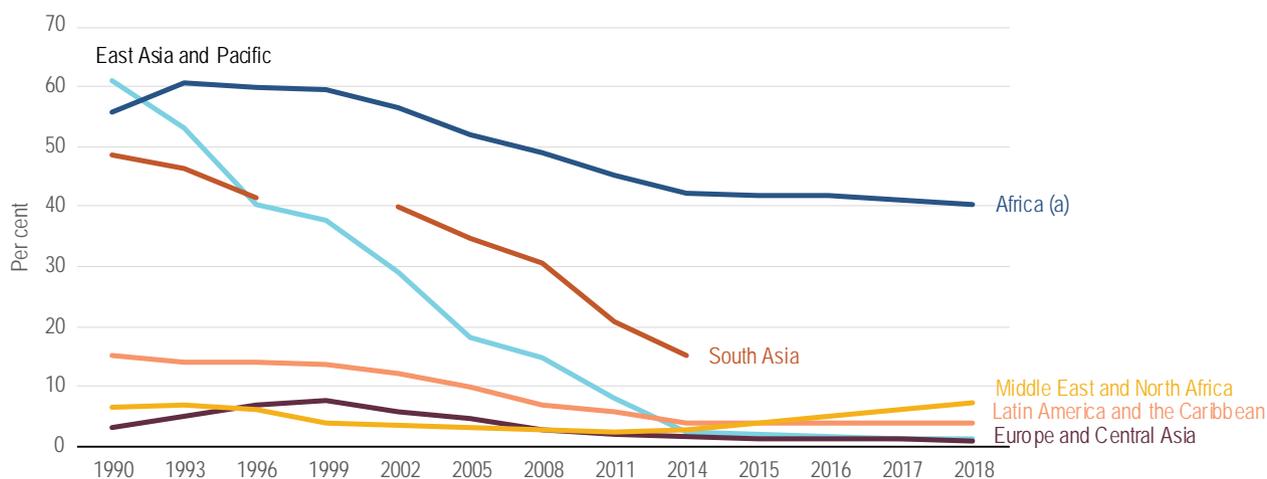


a. The original source refers to Sub-Saharan Africa. Here it refers to Africa because almost all the poverty in Africa is in the sub-Saharan region. Countries in North Africa are included in the Middle East and North Africa category.
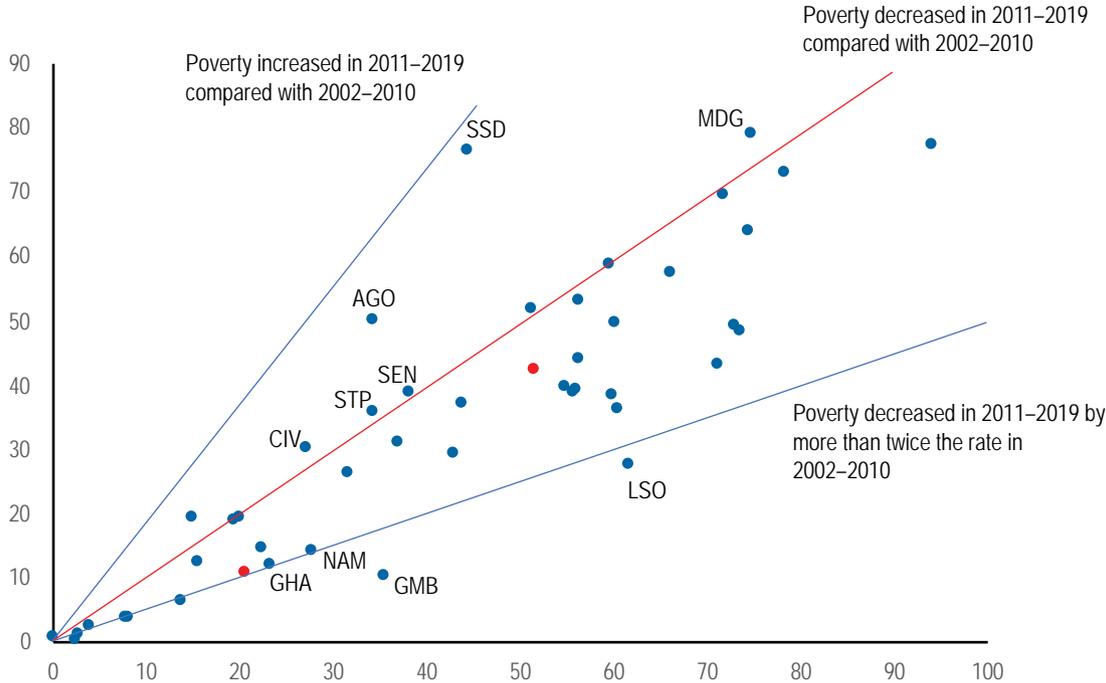
Note: The extreme poverty rate refers to the proportion of the population whose mean consumption is less than $1.90 in purchasing power parity terms a day.

Source: Data from World Bank (2020).

# PROGRESS IN POVERTY REDUCTION ACROSS AFRICA HAS BEEN UNEVEN

Poverty reduction in Africa has seen some progress. Eight countries—Cabo Verde, Gabon, the Gambia, Lesotho, Mauritania, Morocco, Namibia and Tunisia—have halved poverty and are on track to reach the goal of eliminating poverty set out in the 2030 Agenda for Sustainable Development. But in Angola, Comoros, Côte d'Ivoire, Madagascar, São Tomé and Príncipe, Senegal and South Sudan, poverty has worsened (figure 4.2).

**Figure 4.2 Change in extreme poverty rates in selected African countries, 2002–2010 to 2011–2019**



*Note: The extreme poverty rate refers to the proportion of the population whose mean consumption is less than $1.90 in purchasing power parity terms a day.*

*Source: Compiled from the World Bank's World Development Indicators database.*

While the share of the population living in extreme poverty has fallen since 1990, nearly 150 million more Africans are living in poverty today than 30 years ago (figure 4.3). Africans accounted for 62 per cent of the world's poor people in 2017, up from less than 15 per cent in 1990 (Christiansen and Hill, 2019). By 2030, almost 86 per cent of the world's people living in extreme poverty will be in Africa (World Bank, 2020). Thus, even before the onset of the COVID-19 pandemic, Africa was unlikely to meet Sustainable Development Goal 1 (to eradicate extreme poverty by 2030).

The number of people living in extreme poverty has risen since 1990, but the rate of increase has declined considerably since 2002 (figure 4.4). Africa added more than 9 million poor people a year in 1990–2002, only a little more than 1 million a year in 2002–2014 and 6.4 million people a year in 2014–2018 (figure 4.5). This trend is set to undergo a drastic change because of the COVID-19 pandemic: Africa could have added up to 55 million new poor people in 2020 (ECA, 2021). In other words, 12.6 per cent more people are expected to fall into poverty in 2020 alone than the total number of people pushed into poverty since 1999. At this point, it is difficult to predict the likelihood of these people exiting poverty in the future.

**Figure 4.3 Poverty headcount ratio and number of people in Africa, selected years from 1990 to 2018**
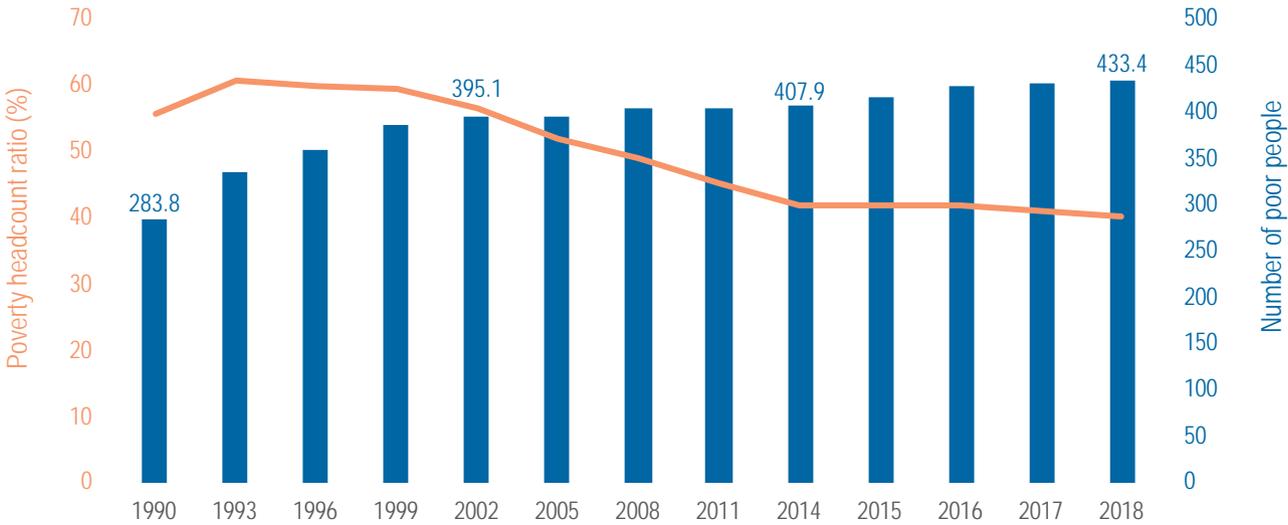


*Note: Poverty refers to mean consumption of less than $1.90 in purchasing power parity terms a day.*

*Source: Data from World Bank (2020).*

## Figure 4.4 Number of additional poor people in Africa, from 1990–1993 to 2018–2020
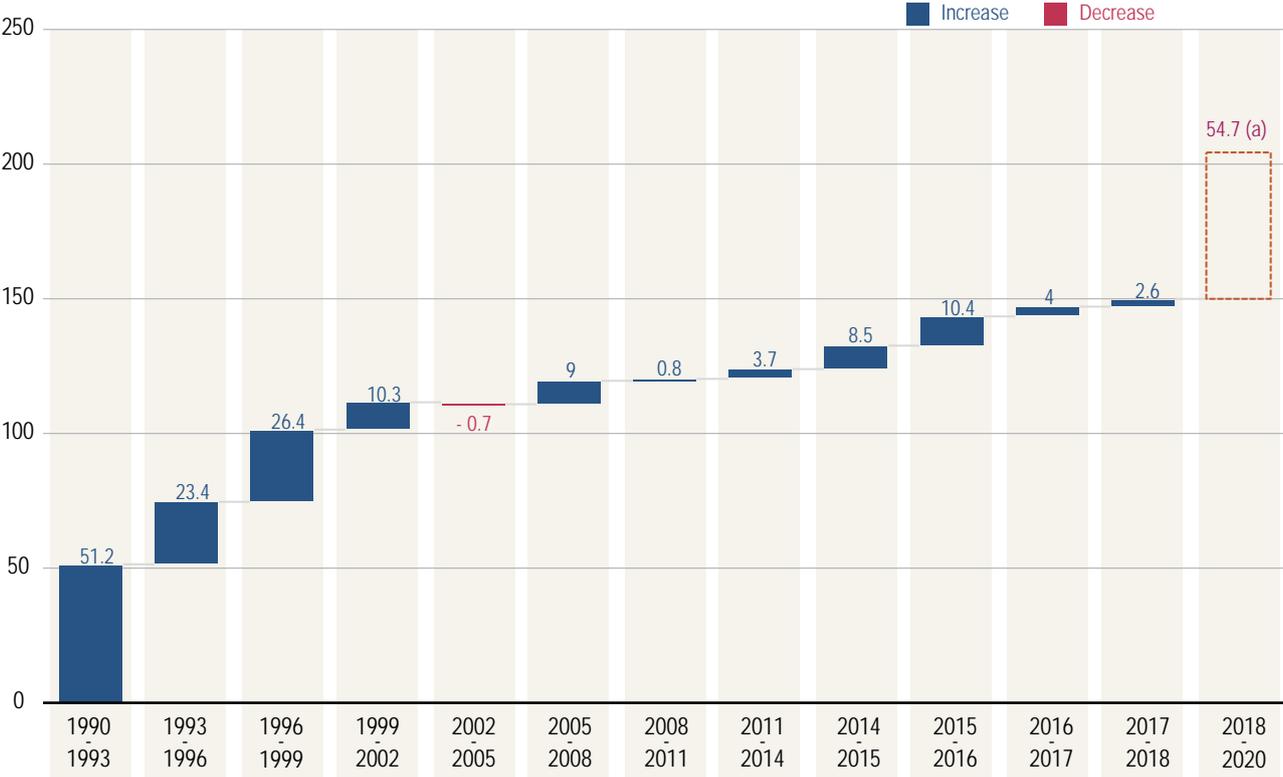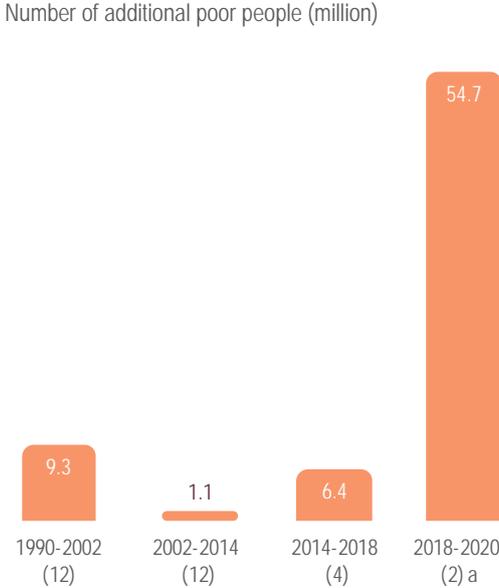


*a. ECA estimate of the increase because of the COVID-19 pandemic. Most of the increase is likely to have taken place in 2020.*

*Note: In the original source, the data refer to Sub-Saharan Africa. Here the data refer to Africa because almost all the poverty in Africa is in the sub-Saharan region. Poverty refers to consumption of less than $1.90 in purchasing power parity terms a day.*

*Source: ECA calculations using data from World Bank (2020).*

The increase in the number of poor people in Africa due to the COVID-19 pandemic must be seen in the context of the longer trend of slow poverty reduction. While the increase itself is not unusual, the estimated size of the increase in one year due to the pandemic—nearly nine times the annual increase in 2014–2018—is exceptional. It accentuates the challenge of reducing poverty in Africa, which is huge—and varied. In early 2018, Nigeria overtook India as the country with the most people living in extreme poverty, and the Democratic Republic of the Congo could soon reach the number two spot. People living in extreme poverty in those two countries will account for more than half of Africa's poor people by 2030.

**Figure 4.5 Number of additional poor people per year in Africa since 1990**

Number of additional poor people (million)



a. Most of the increase is likely to have come in 2020.

Note: In the original source, the data refer to Sub-Saharan Africa. Here the data refer to Africa because almost all the poverty in Africa is in the Sub-Saharan region. Numbers in parentheses refer to the number of years.

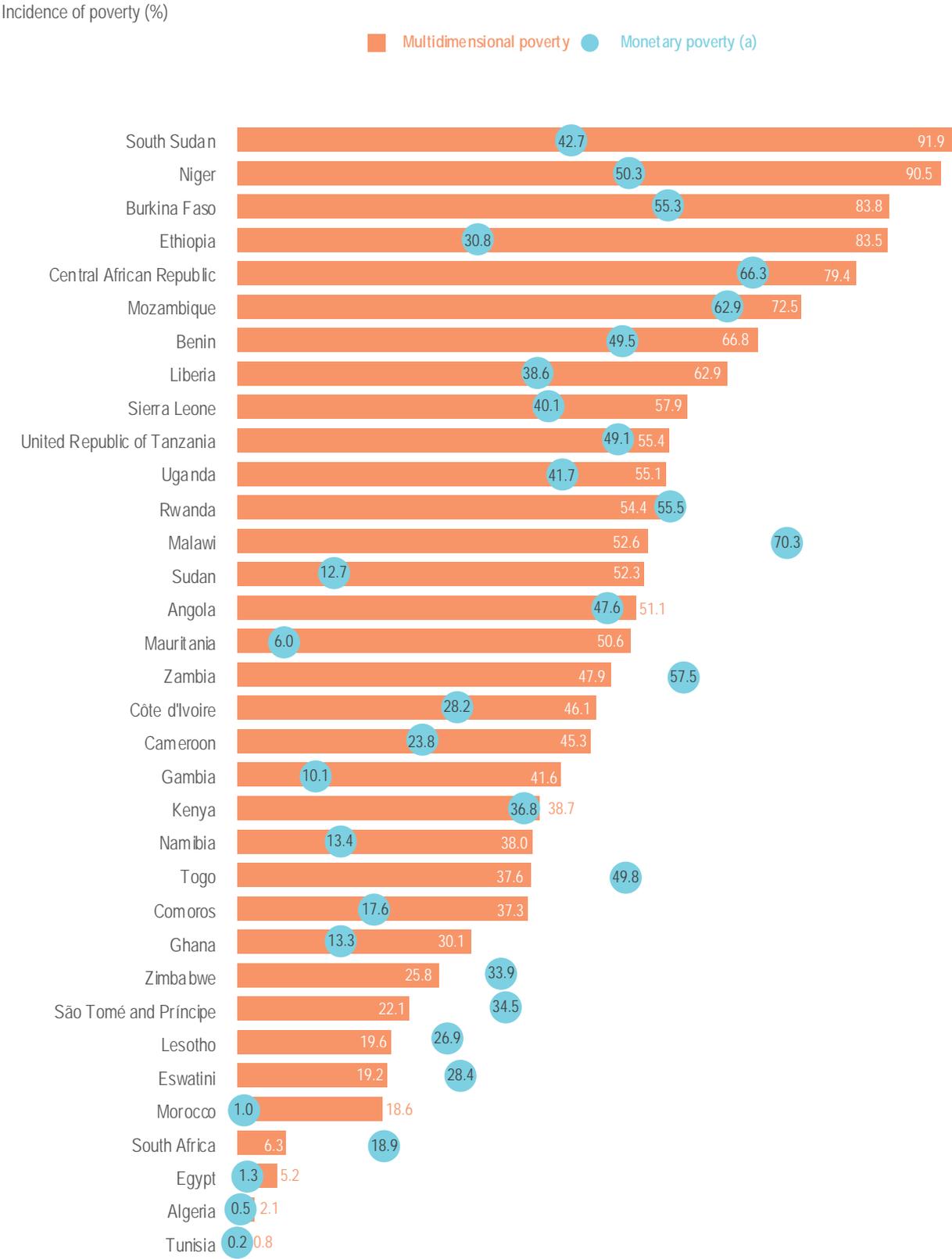Source: ECA calculations from World Bank (2020).

# MULTIDIMENSIONAL POVERTY

Poverty is complex and multifaceted, involving health, education and living standards. As with monetary poverty, Africa has the highest deprivation in multidimensional poverty, with more than half the population living in multidimensional poverty (figure 4.6). Other regions also show non-monetary deprivations that are considerably higher than monetary poverty. In Latin America and the Caribbean, the share of the population in households living in multidimensional poverty is almost double the share of households living in monetary poverty.

There are stark overlaps in the forms of deprivation afflicting households in Africa, with 58 per cent of people in the region who live in multidimensional poverty—21 per cent of the region's total population—deprived in all three dimensions of health, education and living standards (World Bank, 2020). This overlap is lower in other regions: 11 per cent of the people living in multidimensional poverty in Latin America and the Caribbean are deprived in all three dimensions, as are 22 per cent in the Middle East and North Africa. More than 90 per cent of people living in monetary poverty in Africa are also deprived in basic infrastructure, education or both. More than 375 million people in the region (37 per cent) live in households where at least one person is malnourished, and 487 million people (48 per cent of the region's population) lack access to safe drinking water. A key aspect of household poverty is the escalating cost of basic food items.

# Figure 4.6 Incidence of multidimensional poverty and monetary poverty in selected African countries, 2020

Incidence of poverty (%)

■ Multidimensional poverty   ● Monetary poverty (a)

| Country | Multidimensional poverty | Monetary poverty |
|---|---|---|
| South Sudan | 91.9 | 42.7 |
| Niger | 90.5 | 50.3 |
| Burkina Faso | 83.8 | 55.3 |
| Ethiopia | 83.5 | 30.8 |
| Central African Republic | 79.4 | 66.3 |
| Mozambique | 72.5 | 62.9 |
| Benin | 66.8 | 49.5 |
| Liberia | 62.9 | 38.6 |
| Sierra Leone | 57.9 | 40.1 |
| United Republic of Tanzania | 55.4 | 49.1 |
| Uganda | 55.1 | 41.7 |
| Rwanda | 55.5 | 54.4 |
| Malawi | 52.6 | 70.3 |
| Sudan | 52.3 | 12.7 |
| Angola | 51.1 | 47.6 |
| Mauritania | 50.6 | 6.0 |
| Zambia | 47.9 | 57.5 |
| Côte d'Ivoire | 46.1 | 28.2 |
| Cameroon | 45.3 | 23.8 |
| Gambia | 41.6 | 10.1 |
| Kenya | 38.7 | 36.8 |
| Namibia | 38.0 | 13.4 |
| Togo | 37.6 | 49.8 |
| Comoros | 37.3 | 17.6 |
| Ghana | 30.1 | 13.3 |
| Zimbabwe | 25.8 | 33.9 |
| São Tomé and Príncipe | 22.1 | 34.5 |
| Lesotho | 19.6 | 26.9 |
| Eswatini | 19.2 | 28.4 |
| Morocco | 18.6 | 1.0 |
| South Africa | 6.3 | 18.9 |
| Egypt | 5.2 | 1.3 |
| Algeria | 2.1 | 0.5 |
| Tunisia | 0.8 | 0.2 |

*a. Refers to people whose mean consumption is less than $1.90 in purchasing power parity terms a day.*

*Source: Alkire et al. (2020).*

The total number of people at high risk for multidimensional poverty ranges from 5,000 in São Tomé and Príncipe and 69,000 in Gabon to 40 million in Ethiopia. The five countries with the most people at high risk—Ethiopia (40 million), Nigeria (36 million), the Democratic Republic of the Congo (24 million), the United Republic of Tanzania (12 million) and Uganda (9 million)—are home to 60 per cent of the total high-risk population in Africa.

The five countries with the highest proportions of people at high risk for multidimensional poverty are Ethiopia (37 per cent), Niger (35 per cent), Chad (32 per cent), the Democratic Republic of the Congo (29 per cent) and Burundi (26 per cent). These shares are above the population-weighted average for Africa, 20 per cent.

Even as some parts of the world slowly emerge from lockdowns, the COVID-19 pandemic is ongoing in many countries, and the number of confirmed cases and mortality rates keep increasing. Countries in Africa face hard policy choices with limited resources as they plan their recovery. A key policy priority for Africa after the pandemic is to recover quickly from the adverse shock of the pandemic and accelerate poverty reduction, which requires overcoming deep-rooted structural challenges as well.

# FACTORING THE IMPACTS OF RISKS AND SHOCKS IN POVERTY REDUCTION

Households are typically exposed to a wide range of potential idiosyncratic and covariate shocks that can cause substantial fluctuations in income and consumption. Today's non-poor households may be tomorrow's poor households, and future efforts to reduce poverty need to target households that are already poor as well as non-poor households that can be prevented from falling into poverty in the future.

Limited options to manage risks may mean that variation in household consumption over time remains high, particularly in risky environments (Gunther and Harttgen, 2009). In these cases, current poverty status is not necessarily a good indicator of poverty status in future years. Separating the parts of poverty that are structural from the parts that result from risks to shocks has important implications from a policy perspective. While social assistance programmes may be more appropriate for poverty alleviation, supporting households' main livelihoods might be a more efficient way of preventing households from falling into poverty in the future.

Households in risky environments have developed various ex-ante and ex-post risk-coping strategies to reduce income fluctuations or to insure consumption against fluctuations. Because many poor households have limited or no access to formal insurance and credit, they rely on informal coping strategies, including transfers and remittances, asset liquidation, income diversification and migration (Barnett and Skees, 2008).

These strategies are incomplete, however. Large covariate shocks such as natural disasters can overwhelm households' capacity, partly because households affected by the shock may be unable to support each other, in which case, they may have to reduce consumption and take other measures such as withdrawing children from school or selling productive assets. These actions can have long-term, possibly irreversible, impacts on human capital accumulation and future productivity for household members in general and for children in particular (Carter and Maluccio, 2003; Jacoby and Skoufias, 1997).

# WHO IS AT RISK OF FALLING INTO POVERTY?

This section answers three key questions: How many people are vulnerable to falling into poverty because of shocks like COVID-19? Where are they located? And why are they vulnerable? The chapter helps answer the question posed at the start of the report: Where are the people pushed into poverty by the COVID-19 pandemic likely to be?

In the absence of reliable and comparable panel data, vulnerability is proxied by the distance from the poverty line. This means that the closer a non-poor person's consumption is to the poverty line, the higher the likelihood of falling into poverty

because of a shock. Similarly, the closer a poor person's consumption is to the poverty line, the higher the likelihood of exiting poverty in the future, in the absence of a shock. This approach, despite many caveats, provides a quick handle for assessing the country-wide magnitude of the challenge of reducing not only poverty but also long-term vulnerability to poverty.

The overall economic impact of the COVID-19 pandemic on individual consumption and well-being depends on the size, duration and frequency of the risk; exposure to the risk; and ability to manage the risk. The covariate nature of the pandemic—with effects on both demand and supply—means that long-term effects are difficult to measure but risk of consumption volatility is quantifiable. The limited ability to use pre-pandemic coping mechanisms such as smoothing consumption exacerbates pandemic-induced vulnerability.

Ability to manage risks depends on many factors. The chapter builds on the discussion of Sumner, Hoy and Ortiz-Juarez (2020), who focus on vulnerability to poverty—or what they call precarity. As discussed in chapter 1 of the current report, most poor people move in and out of poverty, so the distance from the poverty line is time variant, meaning that a person's vulnerability changes over time. Three kinds of movements are relevant in analysing vulnerability: the movement of non-poor people into poverty, the movement of poor people out of poverty and chronic continuation of poor people below the poverty line. The static poverty headcount ratio provides a snapshot of the net sum of these movements at a particular time.

The headcount ratio presents estimates of the potential impact of the pandemic on poverty using a range of shocks in household per capita consumption or income.

# RANGE OF SHOCKS: THREE SCENARIOS

This chapter extends the analysis in Sumner, Hoy and Ortiz-Juarez (2020) by using an augmented or bidirectional concept of vulnerability where vulnerability is the likelihood of becoming poor in the future. This is possible through the three movements above—so vulnerability to chronic or long-term poverty is akin to a 100 per cent likelihood of future poverty; susceptibility to exiting poverty is akin to a 0 per cent likelihood of future poverty; and vulnerability of non-poor people to falling into poverty, which declines as distance from the poverty line increases, is akin to falling into poverty (box 4.1).

On the third point, the closer that the consumption of a non-poor person is to the poverty line, the higher the likelihood of falling into poverty. This provides a broad estimate of the number of people who are vulnerable to falling into poverty and thereby provides a sense of the scale of the problem. Using this premise as the basis for the subsequent analysis, the chapter uses three scenarios where individuals whose consumption is 0–10 per cent above the poverty line are the most vulnerable to falling into poverty, those whose consumption is 11–25 per cent above are less vulnerable and those whose consumption is 26–33 per cent above are even less vulnerable. The chapter analyses vulnerability to extreme poverty, so the three movements relate to the $1.90 poverty line.

While seemingly arbitrary, the three scenarios capture a range of shocks to well-being for individuals in the bottom income quintile. A key assumption is that the impact on well-being among people living in poverty and people living in extreme poverty far exceeds the impact on national economies because COVID-19 is both a demand and supply shock and because of Africa's high informality, under-employment and fragmented social protection system, where only 18 per cent of people have access to at least one social protection benefit.

**Box 4.1 Three scenarios to capture the range of shocks**

In the absence of an established benchmark, the number of vulnerable people is estimated both above and below the extreme poverty line ($1.90 in purchasing power parity terms a day) at different levels—namely, +/–10 per cent of the extreme poverty line, +/–25 per cent and +/–33 per cent. Individuals whose consumption is 0–10 per cent, 11–25 per cent and 26–33 per cent above the extreme poverty line are considered vulnerable to falling below the poverty line, depending on the size and duration of the shock and the impact on the economic sector where the individual works. Individuals whose consumption is more than 33 per cent above the poverty line but below $5.50 (in purchasing power parity terms) a day are poor based on that poverty line but are considered the least vulnerable to falling into extreme poverty.

Similarly, individuals whose consumption is 10 per cent, 25 per cent and 33 per cent below the extreme poverty line are vulnerable to staying in poverty. Those closer to the poverty line, within 25 per cent or 33 per cent, could exit poverty soon but are likely to be adversely affected by the economic downturn accompanying the COVID-19 pandemic and unable to exit poverty for some time. Those whose consumption is more than 33 per cent below the poverty line (that is, less than $1.30) would require very high growth elasticity of poverty to exit poverty. They are likely to remain in poverty over the long term.

A key limitation of the analysis is that the impact is distribution-neutral and is assumed to have a uniform effect on all individuals within a particular consumption band. Thus, consumption is assumed to be at a single point at $2.09 (10 per cent above the $1.90 poverty line). The results thus understate the vulnerability to falling into poverty and overstate the Poverty Gap Index, but only by degree and without taking away from the central argument.

The most important point of this analysis is that whether an individual is vulnerable to falling into poverty depends on the precise nature and duration of the crisis, which can differ in each country because of differences in government response. The latter depends on the extent of lockdowns imposed (the Government Stringency Index) and the size and duration of the fiscal stimulus analysed in chapter 2.

*...whether an individual is vulnerable to falling into poverty depends on the precise nature and duration of the crisis, which can differ in each country because of differences in government response.*

# VULNERABILITY TO POVERTY IN AFRICA

This section presents the headcount of the population likely to fall into poverty because of a shock like COVID-19, expressed in both absolute numbers and percentage of the total population. This is consistent with research that measures vulnerability as an ex-ante expectation of household-level poverty, which is then aggregated to the population level (Pritchett et al., 2000). However, in the absence of comparable household panel data for all African countries, the vulnerable headcount is estimated directly from population-level data.

The likelihood of staying in poverty increases as an individual's consumption moves further away from $1.90 and closer to $1.30 (top half of table 4.1). The likelihood of falling into poverty increases as an individual's consumption moves closer to $1.90, and even a small shock is enough to push the household below the poverty line (bottom half of table 4.1). However, these numbers become difficult to gauge in the context of a COVID-19-induced global recession and the associated increase in the cost of living. The $1.90 a day threshold does not capture the depth of poverty and vulnerability, particularly given many African countries' lack of well-funded social protection programmes.

# Table 4.1 Distribution of poor people and people vulnerable to staying in or falling into poverty in Africa in different consumption bands, by African subregion and country income group, 2019

| Direction of increasing vulnerability | Consumption band (2011 $ in purchasing power parity terms) | Distance from the extreme poverty line (%) | Subregion (%) | | | | | Income group (%) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | North Africa (6) | West Africa (15) | Central Africa (5) | East Africa (12) | Southern Africa (11) | Low income (21) | Lower middle income (22) | Upper middle income (4) | High income (2) |
| Living in extreme poverty and vulnerable to staying in poverty | <1.30 | < –33 | 1.4 | 19.5 | 24.4 | 33.3 | 34.6 | 32.2 | 18.2 | 14.5 | 0.1 |
| | 1.30–1.40 | –25 to –33 | 0.9 | 5.8 | 4.9 | 5.6 | 5.5 | 5.5 | 4.7 | 3.5 | 0.0 |
| | 1.41–1.71 | –10 to –25 | 2.7 | 11.1 | 8.9 | 10.4 | 9.3 | 10.1 | 8.9 | 8.1 | 0.9 |
| | 1.72–1.90 | 0 to –10 | 2.2 | 6.8 | 5.2 | 6.2 | 5.5 | 6.0 | 5.5 | 5.9 | 0.8 |
| Not living in extreme poverty but vulnerable to falling into poverty | 1.90–2.10 | 0–10 | 3.2 | 6.6 | 5.2 | 5.6 | 4.8 | 5.5 | 5.5 | 5.0 | 1.3 |
| | 2.10–2.40 | 10–25 | 6.0 | 8.3 | 6.6 | 6.8 | 6.2 | 6.9 | 7.3 | 7.6 | 1.4 |
| | 2.40–2.50 | 25–33 | 4.0 | 4.4 | 3.6 | 3.5 | 3.0 | 3.6 | 4.0 | 3.9 | 2.0 |
| Least vulnerable | 2.51–5.50 | > 33 | 79.5 | 37.6 | 41.2 | 28.7 | 31.0 | 30.1 | 46.0 | 51.6 | 93.4 |
| Total | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Note: Numbers in parentheses are the number of countries providing data. Percentages may not sum to 100 because of rounding.

Source: ECA calculations using consumption data from the World Bank's PovcalNet.

# Table 4.2 Distribution of poor people and people vulnerable to staying in or falling into poverty across African subregions and country income group, by consumption band, 2019 (%)

| Consumption band (2011 $ in purchasing power parity terms a day) | Subregion | | | | | Total | Income group | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | North Africa (6) | West Africa (15) | Central Africa (5) | East Africa (12) | Southern Africa (11) | | Low income (21) | Lower middle income (22) | Upper middle income (4) | High income (2) | |
| <1.30 | 0.8 | 26.1 | 4.0 | 50.2 | 19.0 | 100.0 | 60.3 | 37.7 | 2.1 | 0 | 100.0 |
| 1.30–1.40 | 2.4 | 37.6 | 3.9 | 41.5 | 14.6 | 100.0 | 50.2 | 47.4 | 2.4 | 0 | 100.0 |
| 1.41–1.71 | 3.7 | 38.5 | 3.8 | 40.9 | 13.2 | 100.0 | 49.1 | 47.9 | 3.0 | 0 | 100.0 |
| 1.72–1.90 | 5.0 | 38.9 | 3.6 | 39.6 | 12.0 | 100.0 | 48.0 | 48.4 | 3.5 | 0 | 100.0 |
| 1.90–2.09 | 7.5 | 39.4 | 3.8 | 37.5 | 11.9 | 100.0 | 45.7 | 51.1 | 3.2 | 0 | 100.0 |
| 2.10–2.50 | 10.8 | 38.5 | 3.7 | 35.1 | 11.8 | 100.0 | 44.3 | 52.0 | 3.7 | 0 | 100.0 |
| 2.51–5.50 | 13.4 | 37.9 | 3.8 | 34.1 | 10.8 | 100.0 | 43.3 | 53.1 | 3.6 | 0 | 100.0 |
| >5.50 | 26.2 | 31.7 | 4.2 | 27.2 | 10.7 | 100.0 | 35.4 | 60.0 | 4.6 | 0 | 100.0 |

Note: Numbers in parentheses are the number of countries providing data. Percentages may not sum to 100 because of rounding.

Source: ECA calculations using consumption data from the World Bank's PovcalNet.

The subregions in which the people most vulnerable to staying in poverty (or living in chronic poverty) account for the largest share of the total population are Southern Africa (34.6 per cent) and East Africa (33.3 per cent). Unsurprisingly, the country income group in which the people most vulnerable to staying in poverty because of a shock account for the largest share of the total population is the low-income group 33.2 per cent) (table 4.1). About 50.2 per cent of the people in Africa who are most vulnerable to staying in poverty live in East Africa, and 60.3 per cent live in low-income countries (table 4.2).

## Susceptible to exiting poverty

More than 413 million people whose consumption is $1.30–$1.90 a day are both poor and vulnerable (see figure 4.3). This figure has been climbing in recent years (World Bank, 2020). Their daily consumption is 10–33 per cent below the extreme poverty line, and the likelihood of exiting poverty decreases as consumption moves away from $1.90. So, all other things being equal, individuals whose consumption is only 10 per cent below the poverty line are more likely to exit poverty in the future than those whose consumption is 25 per cent or 33 per cent below.

For the more than 61 million people whose consumption is $1.90–$2.09 (0–10 per cent above the poverty line), the gains of the last decade are likely to be reversed, and many may fall further into poverty because of the COVID-19 pandemic. An equal number of these people (24 million) are in East and West Africa, led by Nigeria (12.6 million) and Ethiopia (7.6 million) and followed by the United Republic of Tanzania (4 million), the Democratic Republic of the Congo (3.6 million), Kenya (3.2 million), Uganda (2.9 million) and South Africa (2 million). More than 62 per cent of people whose consumption is 10 per cent below the poverty line are from these seven countries. This group requires increased social sector spending, with targeted support to preserve earlier gains and prevent households from having to resort to adverse coping strategies such as pulling children out of school, which will jeopardize their future exit from poverty.

Given the high internet penetration in these countries, social registries and digital financial infrastructure should be universalized, instead of social assistance, and strengthened to transfer cash benefits directly to the beneficiaries, as Nigeria and Togo are doing. Increasing women's financial literacy and access to digital platforms and bank accounts can greatly improve targeting, and these actions are emphasized to directly receive the transfers. At present, only 42 per cent of adults in Africa have a bank account, with a 12.5 percentage point gender gap in account ownership (Statista, 2020). Further, only 29 per cent of individuals use the internet, the lowest proportion in the world. Only 20 per cent of women in Africa use the internet (Lucini, 2017).

## Vulnerable to falling into poverty

About 175 million people have consumption 10–33 per cent above the extreme poverty line and are not poor but are vulnerable to falling into poverty, depending on the distance from the poverty line. All else being equal, individuals whose consumption is 10 per cent above the poverty line are more likely to fall into poverty in the future than individuals whose consumption is 25 per cent or 33 per cent above.

About 58 million are extremely vulnerable to falling into poverty because their mean consumption is only 0–10 per cent above the poverty line, and a very small drop in consumption could be enough to push them below the line. This group makes up most of the population that is newly poor because of the COVID-19 pandemic. The subregions with the largest proportions of people most vulnerable to falling into poverty are West Africa (6.6 per cent) and East Africa (5.6 per cent) (figure 4.7), led by Nigeria and Ethiopia, owing to shocks (figure 4.8). About 55 per cent of people in African countries with data who are vulnerable to falling into poverty are in the 29 middle- and high-income countries; only 45 per cent are in the 20 low-income countries (table 4.3). Overall, the low-income countries have a higher density of vulnerable people (50,493 per million) than the middle- and high-income countries (40,853 per million).

**Figure 4.7 Proportion of poor people and people who are vulnerable to falling into extreme poverty, by consumption band and African subregion, 2020**

Per cent
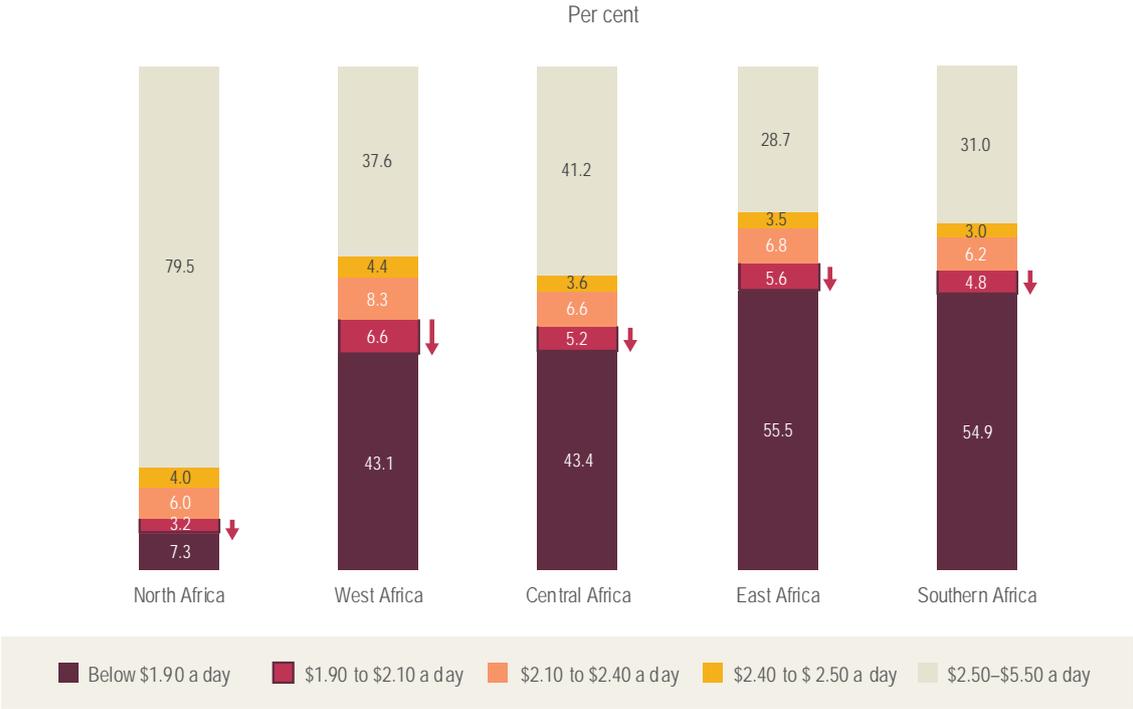


*Source: ECA calculations using consumption data from the World Bank's PovcalNet.*

*Note: Red arrows indicate the proportion people who are vulnerable to falling into extreme poverty.*

**Figure 4.8 Distribution of people vulnerable to falling into poverty in Africa, 2020**
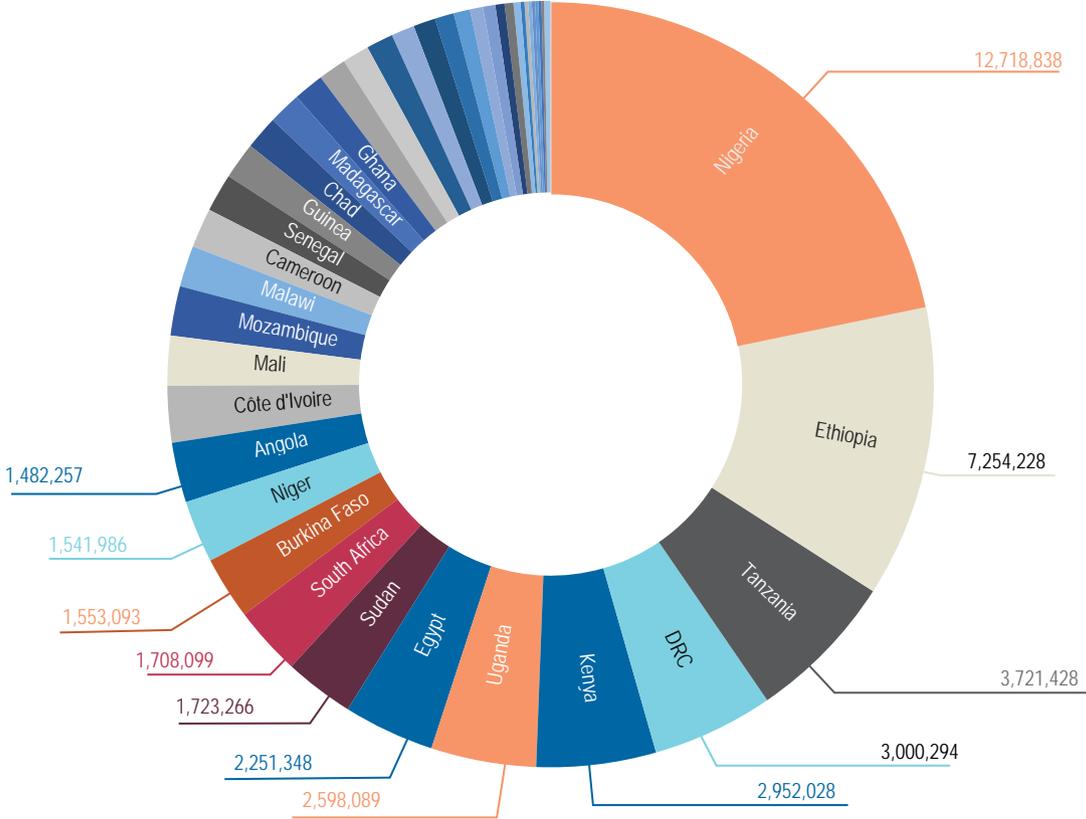


*Source: ECA calculations using data from the World Bank's PovcalNet database.*

**Table 4.3 Ten African countries with the highest absolute number of people vulnerable to falling into poverty and highest density of vulnerable people, 2020**

| Absolute number | | | Density | | |
|---|---|---|---|---|---|
| Country | Subregion | Million | Country | Subregion | Per million population |
| Nigeria | West | 12.7 | Burkina Faso | West | 74,300 |
| Ethiopia | East | 7.2 | Guinea | West | 69,200 |
| United Republic of Tanzania | East | 3.7 | Sierra Leone | West | 68,600 |
| Democratic Republic of the Congo | East | 3.0 | Liberia | West | 64,000 |
| Kenya | East | 2.9 | Niger | West | 63,700 |
| Uganda | East | 2.6 | Ethiopia | East | 63,100 |
| Egypt | North | 2.2 | United Republic of Tanzania | East | 62,300 |
| Sudan | North | 1.7 | Nigeria | West | 61,700 |
| South Africa | Southern | 1.7 | Mali | West | 60,700 |
| Burkina Faso | West | 1.5 | Uganda | East | 56,800 |

*Source: ECA calculations using data from the World Bank's PovcalNet database.*

The non-poor but vulnerable group requires social protection through an adaptive social protection framework that uses improved targeting methods. The social protection programmes need to link to productivity gains and decent employment. This allows investments in human capital accumulation to be inputs and complementary to business development and promotion, as well as employment creation, especially among young people. In addition, the African Continental Free Trade Area and other continental interventions need to be leveraged to improve labour mobility across national borders, including for regional public works. Further, the pooled procurement of pharmaceutical products is expected to create an estimated 16 million jobs while enhancing the skills of young people in the labour force.

*The African Continental Free Trade Area and other continental interventions need to be leveraged to improve labour mobility across national borders, including for regional public works.*

# DRIVERS OF TRANSIENT POVERTY AND VULNERABILITY

The drivers of transient poverty and vulnerability are many. They include ill health, unemployment, lack of access to schooling and high cost of living. In the context of the COVID-19 pandemic and its impact on poverty and vulnerability, the focus here is on vulnerable employment and low wages as drivers. For monoculture economies in Africa, instability in the world economy could have a devastating effect on poverty.

## Vulnerable employment

This section explores the nature of vulnerable employment and its association with poverty and vulnerability. Such employment looms large because of the direct impact of the COVID-19 pandemic on informal workers. Accounting for more than 80 per cent of jobs, the informal sector is the main source of employment in Africa. The urban informal economy is particularly important

for young people (95.8 per cent of people ages 15–24 in urban areas work in the informal economy) and women (92.1 per cent) and is a major contributor to poverty reduction. Vulnerable employment and vulnerability to poverty show a high positive correlation (0.76) (figure 4.9), though Mauritania and the Gambia record high vulnerable employment with low poverty.

Vulnerable employment is often characterized by inadequate earnings (see figure 4.9) and low productivity. Many people in vulnerable employment engage in own-account work or in family firms with limited or no access to social protection, including social assistance. The COVID-19 pandemic has highlighted the vulnerability of informal workers because lockdown measures that helped contain the spread of the virus have also led to job losses, food insecurity and increased vulnerability to poverty. For many, staying indoors is a luxury they cannot afford.

**Figure 4.9 Vulnerable employment is strongly correlated with vulnerability to poverty**
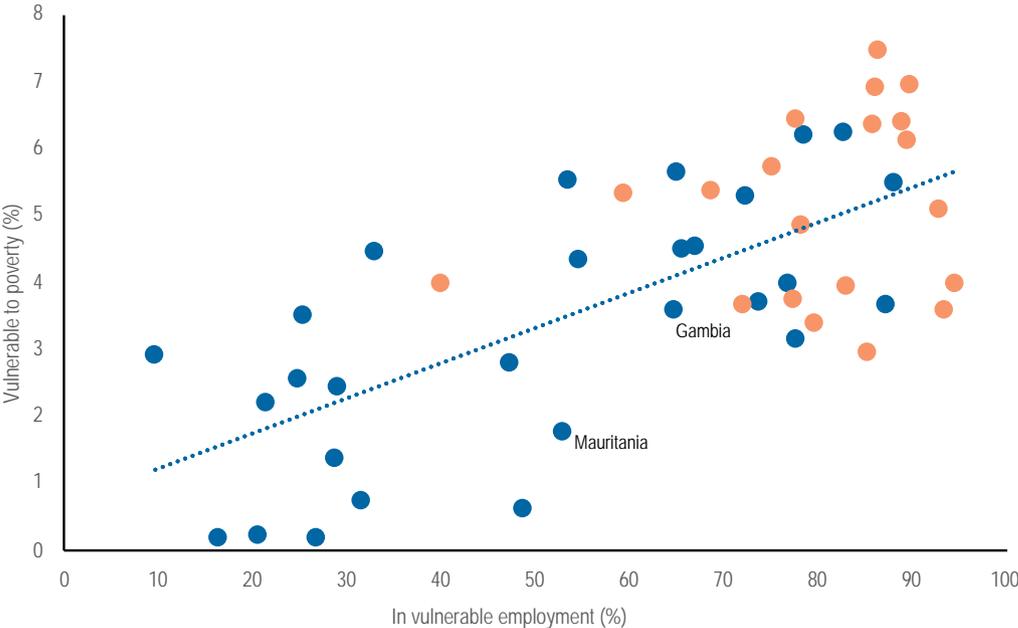


Note: Orange dots are low-income countries, and blue dots are middle- and high-income countries, per World Bank criteria.
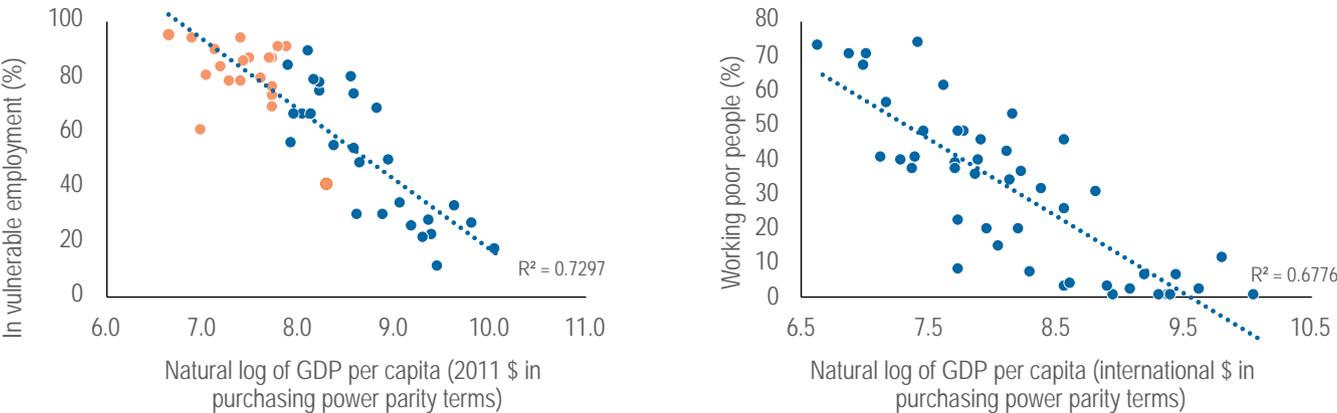
Source: ECA calculations using the International Labour Organization's statistical database (ILO 2020b) for employment data and the World Bank's World Development Indicators database for poverty data.

The informal sector is heterogeneous and has limited but varying capacity to cope with economic shocks. Those working in it who are below the poverty line depend on social protection transfers from the government, though in Africa, only 18 per cent of these working poor people have access to at least one social protection benefit. Informal sector workers who are relatively, but only marginally, better off typically use accumulated savings to smooth consumption. Also called the "missing middle," they lack the protection that formal workers receive from social insurance (Sharif et al., 2020). And uncertainty around the COVID-19 pandemic makes it difficult for them to make savings last for the duration of lockdowns, which has increased their vulnerability to falling into poverty.

## Informality and vulnerability

The shares of people in vulnerable employment and of working poor people decline sharply as GDP per capita increases (figure 4.10). In Africa, the share of workers in informal employment is 86 per cent (ILO, 2018) and decreases as household affluence and the proportion of formal employment rises. A large proportion of wage employees who earn minimum wage or less hold informal jobs, and many of them live in low-income households.

**Figure 4.10a Vulnerable employment and the number of working poor people decline sharply as income rises**



*Note: Orange dots are low-income countries, and blue dots are middle- and high-income countries, per World Bank criteria.*
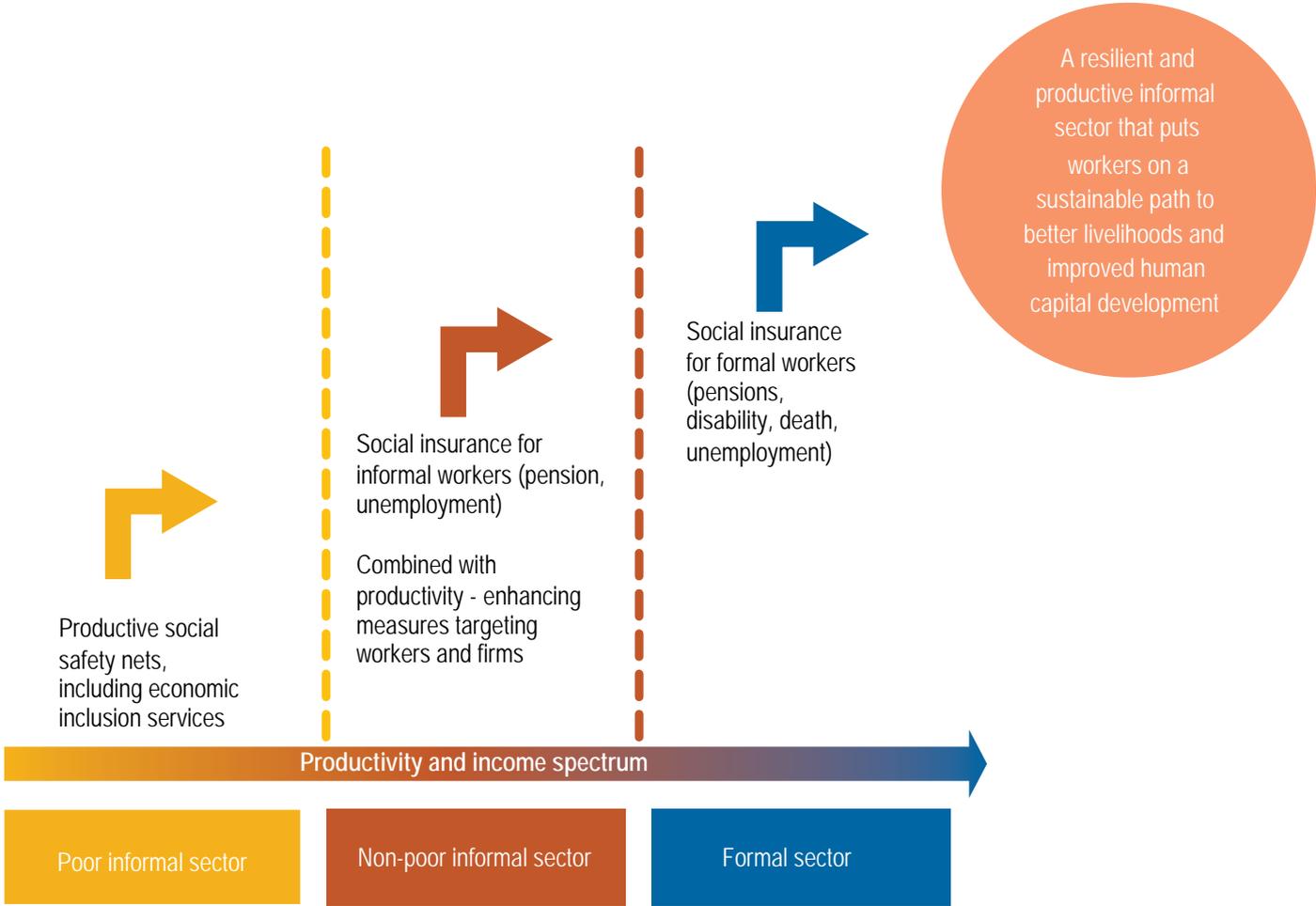
*Source: ECA calculations using the International Labour Organization's statistical database (ILO 2020b) for employment data and the World Bank's World Development Indicators database for poverty data.*

Non-wage informal employment is the dominant category across all income deciles in Africa. Only 13.5 per cent of workers are classified as wage employees in formal employment, and most of them are in the top deciles of the household income distribution. About 65.4 per cent of wage employees are in informal employment, and 38.5 per cent of them earn minimum wage or less, while non-wage employment (formal and informal) accounts for 79.4 per cent of all employment in African countries for which data are available (ILO, 2020a).

Vulnerability to falling into poverty depends on the pattern of prevailing household risks. The variation across countries in household impacts of the COVID-19 pandemic depends on government policies (ex-ante) and steps to mitigate the pandemic's impact (ex-post). These policies and steps generally reflect state provision of public goods such as healthcare, education and social protection; market-driven interventions, such as in the labour market; and individual agency through savings. Yet the COVID-19 pandemic radically changed these baseline conditions in 2020 and likely shifted the location and scale of vulnerability, as well as the people affected by it. Vulnerability increases because of inadequate risk insurance. Reducing vulnerability should thus be about limiting exposure to risks and better managing risks through mitigation or coping (figure 4.11).

## Figure 4.11 Social protection instruments across the income spectrum



A resilient and productive informal sector that puts workers on a sustainable path to better livelihoods and improved human capital development

Social insurance for formal workers (pensions, disability, death, unemployment)

Social insurance for informal workers (pension, unemployment)

Combined with productivity - enhancing measures targeting workers and firms

Productive social safety nets, including economic inclusion services

Productivity and income spectrum

Poor informal sector

Non-poor informal sector

Formal sector

*Source: Guven and Karlen (2020).*

## Vulnerability to global economic instability

Several structural factors restrict Africa's capacity to reduce poverty and manage COVID-19 pandemic–induced shocks. Many countries were hit hard by the collapse in commodity prices and slowdown in global demand, which resulted in poorer export performance and lower net financial inflows. Further, these countries were hurt by limited public and private investment, high debts, fragile fiscal situations, and political instability and long-standing crises. Because of these structural challenges, many countries had limited policy space to confront the pandemic. The pandemic also exposed existing vulnerabilities that risk amplifying the effects of the crisis in Africa.

# THE SPATIAL DISTRIBUTION OF POVERTY AND VULNERABILITY

To assess the spatial distribution of poverty and vulnerability in Africa, countries were placed into six groups based on several attributes along the poverty and vulnerability axes (figure 4.12). Four of those groups are discussed below.

*Group A—low vulnerability and low poverty.* This group has 11 countries exhibiting four important features that contribute to low poverty and low vulnerability: widespread access to formal jobs providing a decent wage, which is key to reducing poverty and vulnerability; low dependency ratios,

**Figure 4.12 Distribution of countries along the poverty and vulnerability axes**
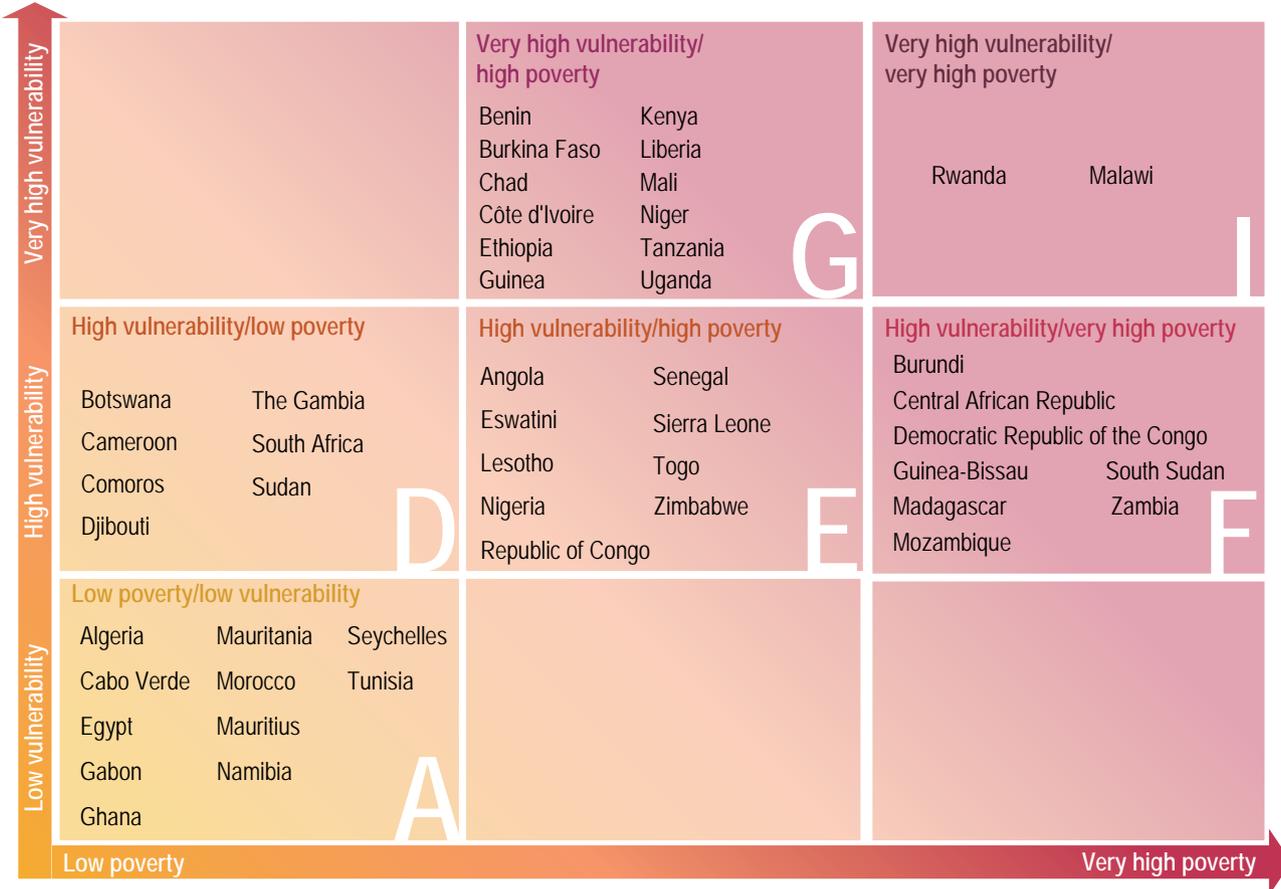


Note: Vulnerable to poverty is the proportion of people whose consumption is 0–10 per cent above the poverty line ($1.91–$2.09 a day). Both axes are divided into three equal parts (terciles), containing the bottom third, the middle third and the top third of values.

Source: ECA calculations from the World Bank's PovcalNet database.

similar to those in developed countries, suggesting low probability of intergenerational transfer of poverty; improved quality of labour supply, which increases the likelihood of employment in the formal labour market; and a high internet access rate, which increases the prospect of job creation in a digital economy and suggests higher ability to work from home. Together, these attributes suggest a strong ability to manage risks. Further, these resilient features also point towards building back better.

*Group F—high vulnerability and very high poverty.* The eight countries in this group lack the important enabling features of Group A countries. They have high poverty (52.7–78.9 per cent) and have struggled to exit low-income status because of low mean consumption of less than $1 a day— or 48 per cent below the extreme poverty line. In the Central African Republic, the Democratic Republic of the Congo, Madagascar and Zambia, mean daily consumption is $0.95 or less. Thus, poor people in these four countries are so far below the poverty line that they are chronically poor. Moreover, 85 per cent of the labour force in these countries is in vulnerable employment, with 65 per cent classified as working poor. The high fertility rate (4.5 births per woman) and high dependency ratio (1.23) keep households poor and increase the likelihood of intergenerational transfer of poverty. There is little human capital investment, as reflected in the low Human Capital Index value of 0.36. Two additional factors exacerbate the countries' high vulnerability: high out-of-pocket spending on health and spending of less than 1 per cent of GDP on social protection. Thus, poor people in these countries—home to 15 per cent of Africa's population—are vulnerable to staying in poverty.

*Groups E and G (high vulnerability and high poverty).* The contrast between Group E (with 6 countries) and Group G (with 15 countries) reveals the drivers of poverty and vulnerability in Africa. The countries in Group G, with 49.1 per cent of Africa's population and the largest number of countries, are in the Sahel and feature agro-climatic vulnerabilities and a high fertility rate (4.5 births per woman).

The difference between the two groups arises in the indicators that relate to employment and skills (circled in red in table 4.4)—informal employment and the share of working poor people are considerably lower in Group E than in Group G, and the share of the skilled workforce in total employment is much higher. This points to higher worker productivity and may explain the higher mean consumption and average GDP per capita in Group E countries, even though the poverty headcount ratio for both groups is similar. Therefore, policy recommendations vary from country to country depending on each country's standing along the poverty and vulnerability axes. No countries fall into the very high poverty/low poverty axes, as shown in the three blank boxes of figure 4.12.

## Table 4.4 Average values interconnected factors across country groups

| Country group[a] | Population (thousand) | P0 | Mean consumption of people whose consumption is less than $1.90 a day ($) | Employment to population ratio (%) | | Vulnerable employment (48) (%) | Working poor people (% of total employment) (46) | Skilled labour force (41) | GDP per capita, 2019 (current international $ in purchasing power parity terms) | GDP contraction (%) | Dependency ratio | Internet penetration (%) | Human Capital Index value |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Youth (ages 15–24) | Adult (ages 25 and older) | | | | | | | | |
| A (11) | 237,330 | 4.2 | 1.44 | 24.2 | 55.8 | 30.1 | 1.8 | 47.3 | 12,909 | 9.0 | 0.58 | 56 | 0.50 |
| D (7) | 136,330 | 16.8 | 1.34 | 18.8 | 51.7 | 47.6 | 10.8 | 28.0 | 7,258 | 8.0 | 0.69 | 36 | 0.41 |
| E (6) | 64,828 | 38.7 | 1.79 | 22.4 | 57.1 | 62.4 | 28.7 | 26.4 | 4,543 | 4.9 | 0.82 | 32 | 0.41 |
| F (8) | 196,774 | 66.1 | 0.99 | 46.4 | 76.1 | 85.0 | 64.9 | 17.1 | 1,668 | 4.6 | 1.23 | 17 | 0.36 |
| G (15) | 643,549 | 41.2 | 1.30 | 41.8 | 70 | 80.9 | 37.1 | 17.3 | 2,885 | 5.5 | 0.86 | 35 | 0.38 |
| I (2) | 32,082 | 63.6 | 1.15 | 45.8 | 68.9 | 64.1 | 56.5 | 17.3 | 1,716 | 5.6 | 0.79 | 30 | 0.40 |

*Note: Numbers in parentheses are the number of countries in the group.*
*a. See figure 4.12.*
*Source: ECA calculations.*

The analysis of these country groups suggests two main conclusions. First, poverty, depth of poverty and vulnerability are interconnected, so development policy needs to address them together. Second, countries with low dependency ratios, a highly educated labour force, the capacity to generate jobs and high-quality internet infrastructure to support a digital economy are likely to experience low poverty and reduced vulnerability, suggesting a strong ability to manage risks—countries in Groups A and D. The opposite is the case for countries without these critical attributes, such as those in Groups E, F, G and I.

Complementarity between hedging against risks for non-poor people not to fall into poverty and orthodox ex-ante poverty reduction strategies is critical, especially given that 40 per cent of poor people in Africa live in transient poverty and the likelihood of their increasing in number through exogenous shocks like the COVID-19 pandemic. Further, given the scale of informality, lack of adequate social protection and employment opportunity as an exit strategy, hedging against risks to reducing poverty and vulnerability remain fundamental features of African labour markets.

# CONCLUSION

This chapter has emphasized that a large share of the population in Africa was vulnerable to poverty before the COVID-19 pandemic and that the pandemic has intensified these vulnerabilities. Vulnerability is an expectation of future poverty based on conditions prevailing at the baseline. Risks in social, economic, health, environmental and other dimensions that households face at a given time determine their vulnerability to poverty in the future. With the pandemic, households face greater risks than before.

The worsened conditions of the COVID-19 pandemic caused many people who were vulnerable before the pandemic to become poor in 2020. And many people who avoided falling into poverty despite the shock of COVID-19 are now vulnerable to future poverty because the pandemic increased household risks; their vulnerability to poverty might become actual poverty in 2021. Forecasts by ECA, the African Development Bank and the World Bank suggest that poverty is likely to increase, reversing gains since 2002. While these forecasts are based on macroeconomic estimates, the reduction of household risks will determine whether current vulnerability translates into actual poverty.

Entering 2022, many households will have depleted their resources to cope with prolonged impacts of the COVID-19 pandemic, as well as other risks and shocks that might have arisen even without the pandemic. The pandemic has highlighted the state's role in managing covariate risks. Governments responded initially with fiscal and monetary stimulus to mitigate risks and have addressed health shocks. Their attention is now on accessing vaccines for their populations. The next chapter develops a dashboard to assist countries in identifying areas that need attention and in monitoring progress to better manage covariate and idiosyncratic risks.

## Annex table 4.1 Risk management strategies

| Objective | Informal mechanisms | | Formal mechanisms | |
|---|---|---|---|---|
| Reducing risk | • Preventive health practices<br>• Migration<br>• More secure income sources | • Collective action for infrastructure, dikes, terraces<br>• Common property resource management | | • Sound macroeconomic policy<br>• Environmental policy<br>• Education and training policy<br>• Public health policy<br>• Infrastructure (dams, roads)<br>• Active labour market policies |
| **Mitigating risk**<br><br>Diversification | • Crop and plot diversification<br>• Income source diversification<br>• Investment in physical and human capital | • Occupational associations<br>• Rotating savings and credit associations | • Savings accounts in financial institutions<br>• Microfinance | • Agricultural extension<br>• Liberalized trade<br>• Protection of property rights |
| Insurance | • Marriage and extended family mutual support<br><br>• Buffer stocks | • Investment in social capital (networks, associations, rituals, reciprocal gift giving) | • Old age annuities<br>• Accident, disability, and other insurance | • Pension systems<br>• Mandated insurance for unemployment, illness, disability and other risks |
| Coping with shocks[a] | • Sale of assets<br>• Loans from money lenders<br>• Child labour<br>• Reduced food consumption<br>• Seasonal or temporary migration | • Transfer from networks of mutual support | • Sale of financial assets<br>• Loans from financial institutions | • Social assistance<br>• Workfare<br>• Subsidies<br>• Social funds<br>• Cash transfers |

Note: The light shaded area shows household and community responses through informal mechanisms to improve risk mitigation and coping. The dark shaded area shows publicly provided mechanisms for insuring against risk and coping with shocks—the social safety net.

a. Publicly provided coping mechanisms can also serve risk mitigating purposes if they are permanent.

Source: World Bank (2020).

# REFERENCES

Alkire, S., U. Kanagaratnam, R. Nogales and N. Suppa. 2020. "Revising the Global Multidimensional Poverty Index: Empirical Insights and Robustness." Research in Progress Series 56a, Oxford Poverty & Human Development Initiative, Oxford, UK.

Barnett, B., and J. R. Skees. 2008. "Poverty Trap and Index-based Risk Transfer Products." *World Development* 36 (10): 1766–1785.

Bhalla, S. 2002. "Imagine There's No Country: Poverty, Inequality, and Growth in the Era of Globalization." Peterson Institute for International Economics, Washington, DC.

Carter, M. R., and J. Maluccio. 2003. "Social Capital and Coping with Economic Shocks: An Analysis of Stunting of South African Children." *World Development* 31 (7): 1147–1163.

Christiansen, L., and J. L. Hill. 2019. "Poverty in Africa." In K. Beegle and L. Christiansen (eds.), *Accelerating Poverty Reduction in Africa*. Washington, DC: World Bank.

Deaton, A. 2005. "Measuring Poverty in a Growing World (Or Measuring Growth in a Poor World)." *The Review of Economics and Statistics* 87 (1): 1–19.

ECA (United Nations Economic Commission for Africa). 2021. "Africa's Quarterly Economic Performance and Outlook, January–March 2021." Unpublished, ECA, Addis Ababa.

Gunther, I., and K. Harttgen. 2009. "Estimating Household Vulnerability to Idiosyncratic and Covariate Shocks: A Novel Method Applied in Madagascar." *World Development* 37 (7): 1222–1234.

Guven, M., and R. Karlen. 2020. "Supporting Africa's Urban Informal Sector: Coordinated Policies with Social Protection at the Core." *Africa Can End Poverty* blog, World Bank, 3 December. https://blogs.worldbank.org/africacan/supporting-africas-urban-informal-sector-coordinated-policies-social-protection-core.

ILO (International Labour Organization). 2018. *World Social Protection Report 2020–2022: Universal Social Protection to Achieve the Sustainable Development Goals*. Geneva: ILO.

ILO (International Labour Organization). 2020a. *Global Wage Report 2020–21*. Geneva: ILO.

ILO (International Labour Organization). 2020b. Labour statistics database. ILO, Geneva. https://ilostat.ilo.org.

Jacoby, H. G., and E. Skoufias. 1997. "Risk, Financial Markets, and Human Capital in a Developing Country." *Review of Economic Studies* 64: 311335.

Lucini, B. A. 2017. *Connected Society: Consumer Barriers to Mobile Internet Adoption in Africa.* London: GSMA Intelligence.

Pinkovskiy, M., and X. Sala-i-Martin. 2013. "Lights, Camera,... Income! Estimating Poverty Using National Accounts, Survey Means, and Lights." Working Paper 19831, National Bureau of Economic Research, Cambridge, MA.

Pinkovskiy, M., and X. Sala-i-Martin. 2014. "Africa Is on Time." *Journal of Economic Growth* 19 (3).

Pritchett, L., A. Suryahadi and S. Sumarto. 2000. "Quantifying Vulnerability to Poverty: A Proposed Measure Applied to Indonesia." Policy Research Working Paper 2437, World Bank, Washington, DC.

Sharif, I., M. Guven, H. Jain and J. Arulpragasm. 2020. "Social Insurance for the Informal Sector Can Be a Lifeline for Millions in Africa." *Africa Can End Poverty* blog, World Bank, 20 May. https://blogs.worldbank.org/africacan/social-insurance-informal-sector-can-be-lifeline-millions-africa.

Statista. 2020. "Number of Adults with a Bank Account in Africa from 2012 to 2022." https://www.statista.com/statistics/915625/number-adults-with-bank-account-africa/.

Sumner, A., C. Hoy and E. Ortiz-Juarez. 2020. "Estimates of the Impact of Covid-19 on Global Poverty." Working Paper 43/2020, United Nations University–World Institute for Development Economics Research, Helsinki.

World Bank. 2020. *Poverty and Shared Prosperity 2020: Reversals of Fortune*. Washington, DC: World Bank.