



THE SUSTAINABLE
DEVELOPMENT
GOALS
CENTER FOR
AFRICA

COVID-19

UNPRECEDENTED RISK TO SDGs IN AFRICA

May 2020

Connecting Ideas | Strengthening Capacity | Innovation Solutions

www.sdgc africa.org



TABLE OF CONTENTS

FOREWORD	1
1. INTRODUCTION	2
2. COVID-19 IN AFRICA	2
3. GROWTH PILLAR AND SDGs FINANCING.....	5
4. COVID-19 AND SDGs	11
4.1 Poverty and Food Security	11
4.2 Health and COVID-19	14
4.3 COVID-19 Impact on Education	16
5. TAKEAWAYS.....	17
REFERENCE	19

List of Figures and Tables

- Figure 2.1: Global COVID-19 total reported cases, deaths and recoveries..... 3
- Figure 2.2: Total number of cases, deaths, recovered and active cases by country and region in Africa4
- Figure 2.3: Number of deaths reported in the top ten African countries..... 5
- Figure 3.1: PMI for Selected Africa Nations Compared to Global 6
- Figure 3.2: Annual Growth Rate of Remittances (%)..... 8
- Table 4.1: Additional Poor People due to COVID-19 Pandemic in SSA..... 12
- Figure 4.1: Impact of COVID-19 on Poverty (SSA), 1993–2015 and Projections to 2030 12
- Figure 4.2: Impact of COVID-19 on Food Security in Sub Saharan Africa 14

FOREWORD

The COVID-19 pandemic has been spread to almost all nations in the continent, though with marked differences noticed in its spread and severity across nations. While the highest number of infections in Africa has been reported by Egypt, South Africa and Algeria, most of the sub-Saharan Africa have confirmed cases in three digits. Despite the late pandemic on set in Africa with the first case reported on 25 February 2020 in Algeria, the infection rate and number of deaths increased exponentially in second half of March and April, but pace of increase has slowed in May. However, case volatility prevails raising more uncertainty. Though Africa has low levels of confirmed cases, the level of testing cases per 1,000 people is the lowest in Africa comparing unfavorably with other regions. The slow spread in Africa has also provided it with sufficient lead time to put right prevention, protection and recovery policies in place and learn from the experiences of others. However, the danger from this invisible enemy is not over yet and one could still see a late surge of the pandemic stretching well into the second half of 2020. Different countries have experienced different outcomes with varying number of cases, rate of increase and how the countries have responded since the respective first cases.

The analytical exposition therein this report reveals the twin crises (health and economic) have heightened the risks to SDGs. This is not good news, owing to fact as shown in the Africa SDG Index and Dashboards series, Africa remains largely off track on the 2030 SDG targets. The pandemic moves Africa performance further off the SDG ideal path. We predict the largest GDP contraction in Africa in 50 years of -2 per cent in 2020, even in the best scenario of 2 months' lockdown. Consequently, COVID-19 could push more than 20.4 million into extreme poverty in 2020 in an optimistic scenario and in the worst case, 82 million additional poor people. Similarly, an additional of 63.7 million people could be severely food insecure. Already, thirty-four Africa nations were on their knees for food assistance. The situation could further be exacerbated by swarm of locusts that have invaded largely Eastern Africa. Sadly, education for majority of students has been brought to halt and virtual learning alternative is limited and to a few. Health pandemic aggravates the adversities to the health of many Africans. Africa already has 110 million people who were found in Africa (more than double the number in the year 2000) in category of catastrophic expenditure, with the out-of-pocket health spending exceeding 10% of the household budget (total consumption or income) and expected to increase owing to dwindle of income and increased health risks.

Despite the situation invariably imposing cost across the economic, social and psychological spectrum, there should be a clear strategy by each nation that will ensure optimizing this effort. Earmarked and protected investment should first target health sector (for saving lives and building a resilient sector), investing in an economically strategic sector for agriculture to also critically address rising food insecurity as well as poverty oriented reforms (including protected social protection). Some investments to sectors like tourism and recreation should defer to the medium term, given the expected recovery of sectors with a lag. Equally there is need for evidence based expansionary monetary and financial policies aimed at protecting Small Medium Enterprises and other corporates that are at risk of bankruptcy. Global solidarity and support is imperative in complimenting domestic sources of financing and response. Leadership remains a key game changer.

Belay Begashaw (PhD)

Director General, The SDG Center for Africa

1. INTRODUCTION

With only 10 years to the realization of 2030 SDG targets and the World remaining off targets, 2020 marked the launch of "a decade of action" aimed at accelerating progress. On the other end, the global pandemic in Coronavirus emerged and spread rapidly, leading to loss of human life - bringing the World to its knees across all sectors at a pace never witnessed before. Global recession is expected in 2020 and Sub-Saharan Africa has not been spared, with negative GDP growth of record magnitude forecast in 50 years (IMF, 2020). However, the true extent of the impact in terms of magnitude, intensity and severity is contingent upon the pace of finding a healthy and lasting solution to the virus. Otherwise, the risk of longer recovery is imminent and likely. The immediate impact has manifested through lockdowns (partial or full), with over 42 African countries in outright restrictive measures (travel, border closure, closure of schools, and a ban of public gatherings including religious ones (IMF, 2020). The backdrop is not good news for the Sustainable Development Goals for Africa, where progress has been off track the 2030 targets. Evidence suggests that a reduction in growth translates into an increase into poverty and vice versa (World Bank, 2020c). Food poverty is likely to increase or even double as indicated in the Global Report on Food Crises (WFP, 2020). Correlations between SDGs also do exist, implying one affected SDG will trickle into other SDGs (SDGCA & SDSN, 2019). Financing for SDGs is now tilted to the downside. Africa is increasingly more at crossroads with the low revenue envisaged, narrow fiscal space exhibited by heightened debt risks and yet nations are adopting expansionary fiscal policies to avert the twin crisis (health and economic). Overall, deductively the three core elements of the SDGs, growth, inclusion and environmental sustainability, will be compromised.

It is against this backdrop, that this report details the likely impact of COVID-19 on SDGs in Africa. To the extent of our extensive review, there is no exclusive study on SDGs and COVID-19 in Africa. This report focused on the twin crisis (health and economic), with attention on the economic growth pillar (including financing for development) and people (selectively proxied by SDG 1-4). The methodological approach adopted for this report utilizes both qualitative and quantitative measures, each subchapter takes an ex-ante analysis due to lack of data and where it was feasible and data prevails – the study provides inferential and scenario analysis. On select goals, trend analysis is undertaken mapping both the SDGs normal line without COVID-19 and the adjusted forecasts factoring in COVID-19. The latter relies on assumptions built from empirical studies used to backstop the growing narrative on the impact of COVID-19.

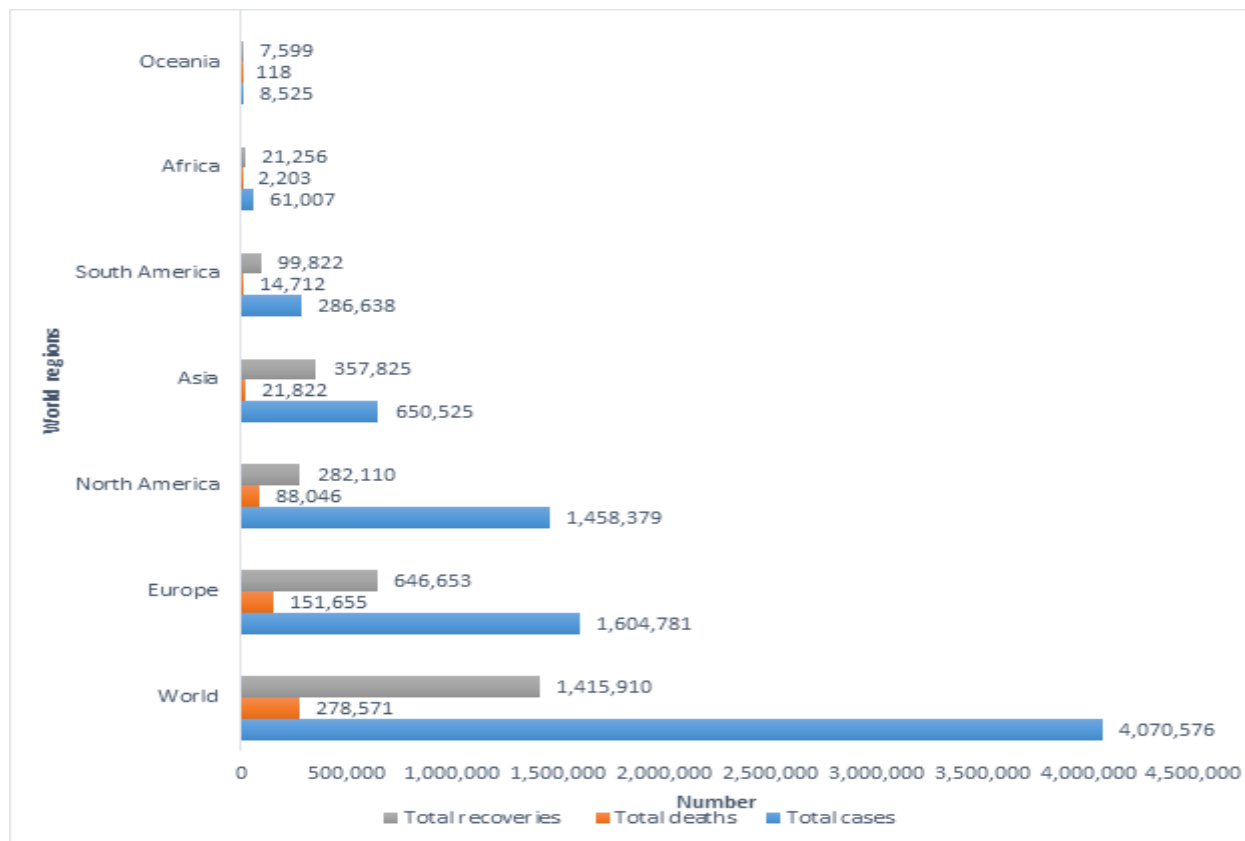
2. COVID-19 IN AFRICA

COVID-19 continues to spread globally and reported cases are increasing exponentially and remains the leading infectious disease worldwide, with both recoveries and deaths on the increase. Globally, the number of COVID -19 reported cases has increased over the time and reached 4,070,576 as of 9 May 2020, with an average case fatality rate of 7.1% compared to the highest rate in Europe of 10.1% (WHO, 2020a). Africa only accounts for only 1.5% of cases confirmed globally, with a total of 61,007 confirmed cases, 2,203 deaths (with average case fatality rate of 4.0%) and 21,256 recoveries have been reported as of 9 May 2020 (see Figure 2.1). Africa, lagging behind the curve

¹Case fatality rate (CFR), in epidemiology, is defined as the proportion of people who die from a specified disease among all individuals diagnosed with the disease over a certain period of time (WHO, 2020a).

also presented the advantage of benchmarking and taking lessons including taking early response in form of partial or full lockdowns to avoid spread of virus at the backdrop of weak health systems. However, the testing cases per 1,000 people remains lowest in Africa and relatively low in low income and poorer countries (UNECA, 2020).

Figure 2.1: Global COVID-19 total reported cases, deaths and recoveries



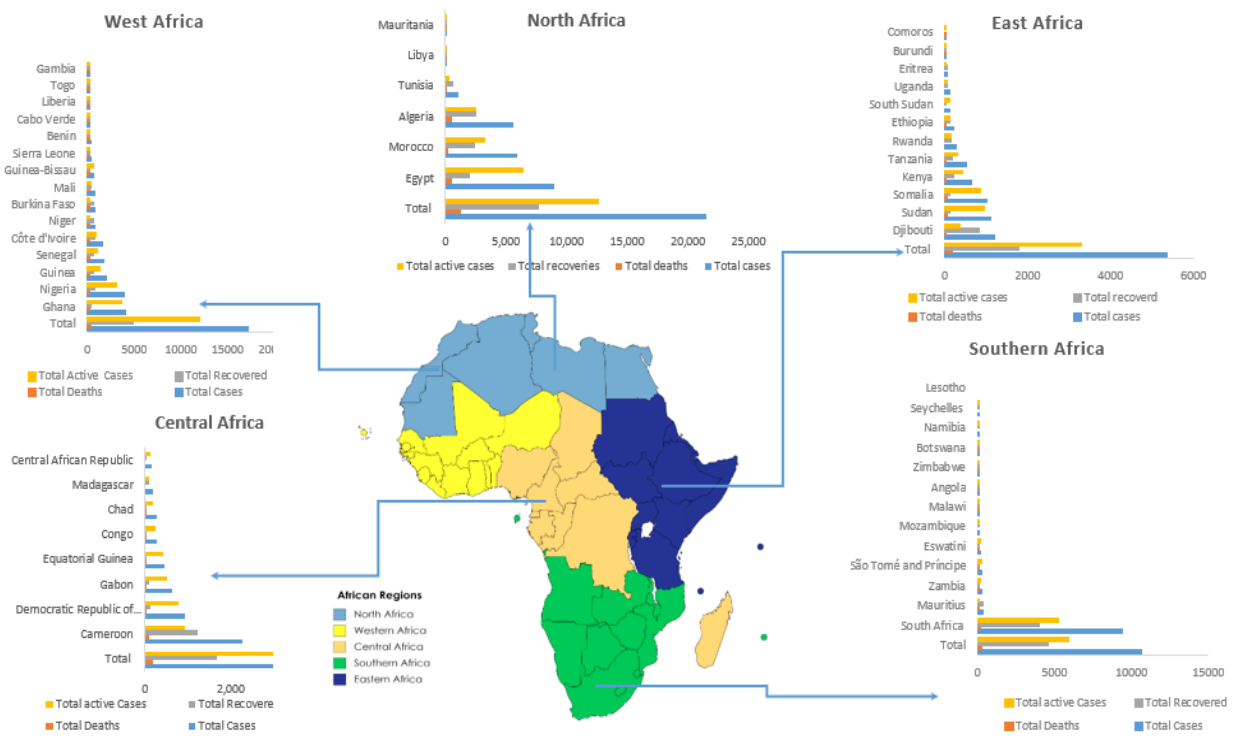
Source: SDGCA analysis based on Worldometers dataset

Globally, as of 10 May 2020, the total active cases were 2,376,034, about 60% of the total confirmed cases. By region, they stood at 1,088,223 in North America and 806,473 in Europe, 270,878 in Asia, 172,104 in South America, 37,548 in Africa and 808 in Oceania continent. At global level, Africa is second from the lowest.

In Africa, both active cases and death rates are still on the rise, though at a reducing rate, also exhibited by declining case fatality rate. North Africa region has the highest confirmed cases followed by the Southern region. However, the heavily hit countries are South Africa, Algeria, Nigeria, Ghana, and Democratic Republic of Congo (DRC). As of 10 May 2020, the COVID-19 pandemic continues to escalate in African regions, with the majority of the confirmed cases from North Africa (21,534), West (17,171), South (10,642) East (5,344), Central (5,140) as shown in Figure 2.2.

²<https://ourworldindata.org/blog>

Figure 2.2: Total number of cases, deaths, recovered and active cases by country and region in Africa

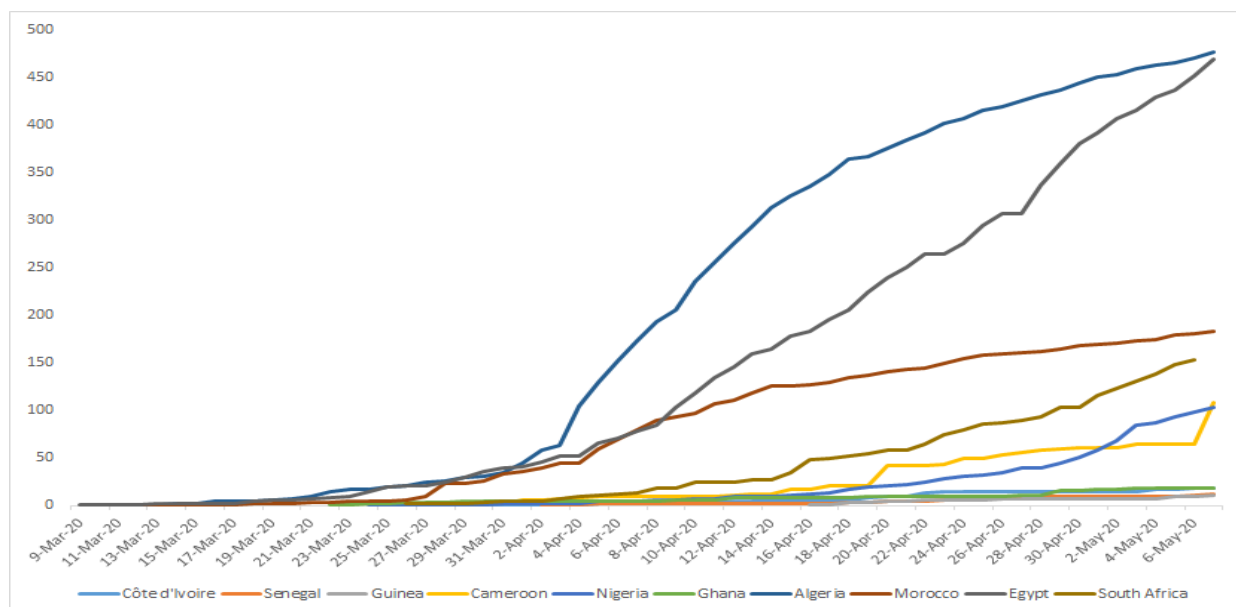


Source: SDGCA analysis based on WHO data

Currently, the majority of the countries in Africa are experiencing local and regional (cross border) transmission of COVID-19 and the number of countries with widespread cross border transmission is also increasing for example in countries like Kenya, Uganda Rwanda, Zambia, Tanzania (WHO, 2020b). According to WHO, 2020 analysis based on available data for 4,805 cases, age and gender distribution for these cases shows that the male to female ratio among confirmed cases is 1.8, and the median age is 42 years old (range: 0-105). However, males (62%) aged 31-49 are more affected than females (38%) of the same age-group (WHO, 2020b).

Similarly, a review of the deaths reported by the top ten countries discussed in the section above revealed that the curve is also flattening for these African countries, largely due to the slowdown in death growth rate associated with the pandemic. Figure 2.3. summarizes the number of deaths reported in the top ten African countries which are: Algeria, Egypt, Morocco, South Africa, Cameroon, Nigeria, Côte d’Ivoire, Ghana, Senegal and Guinea. However, the country with the highest reported deaths is Algeria (476 cases), followed by Egypt (469 cases) then Morocco (183 cases) and Guinea (11 cases) is the country with the lowest number of cases among the group.

Figure 2.3: Number of deaths reported in the top ten African countries



Source: SDGCA analysis based on Our World in data

Our data exposition based on Our World in data shows that the case fatality rate for COVID-19 in Africa like other regions in the world except in North America is decreasing. Some Africa economies like Algeria and Egypt have high fatality rates of 10.5% and 7.2% respectively, making them amongst the top 12 countries with highest fatalities (UNECA, 2020). However, the case fatality rates vary over time (highly volatile), which suggests considerable uncertainty over the exact case fatality for each region.

3. GROWTH PILLAR AND SDGs FINANCING

A recession of record magnitude is expected in 2020 since the 1970s is foreseen for Africa in 2020, and a depression threatens. In 2020, growth will be at least 8 percentage points off the SDG target of 7%. Globally, growth has slowed in the first quarter of 2020 at a faster rate not witnessed before, owing to the unexpected global pandemic Coronavirus discovered first in December 2019 in Hubei province of China (Wuhan City). The subsequent spread across the world and associated partial or full lockdown and border closures has brought a shutdown to the majority of businesses. The ensuing fear and panic across firms and households has affected consumption patterns and firm turnover, consequently the global stock market indices have taken a nosedive³. Uncertainty on containment and vaccine development remain at large, but even with containment, the short run downside impact is inevitable (McKibbin & Fernando, 2020). The worst recession since the 1930 depression is expected in 2020, with a forecast of global growth of -3%, from the earlier forecast of 3.3% made in January 2020 (IMF, 2020). However, a depression also threatens owing to prolonged or repetitive trends of virus spread. Based on assumption of two months' lockdown in most of Africa economies and survey estimates of 40% production capacity, our scenario one estimates that at least one month of GDP would be lost, corresponding to negative growth for 2020 (negative 1-3%).

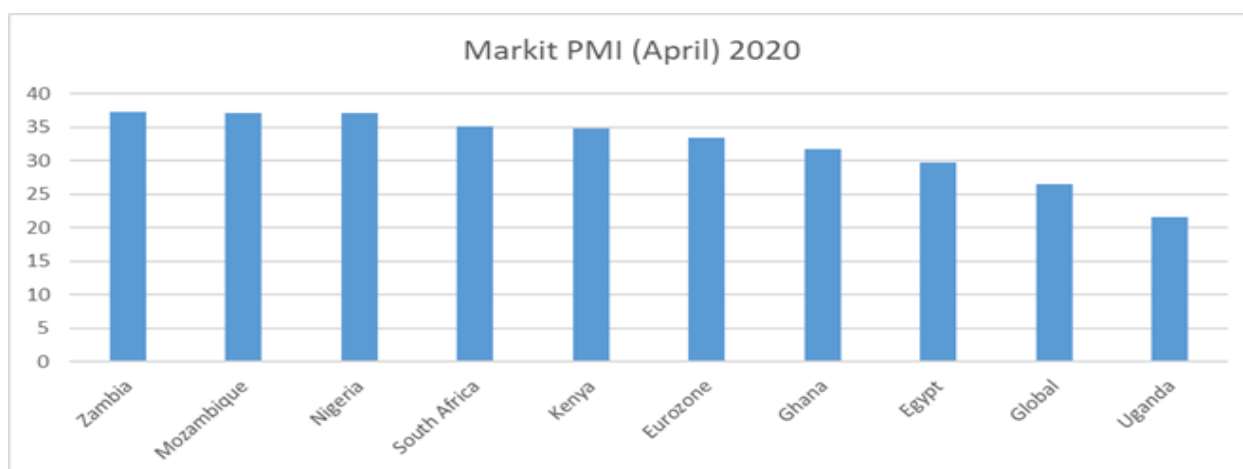
³<https://libguides.bodleian.ox.ac.uk/e-books/covid-19>

Scenario two is premised on an assumption of 3-4 months of partial and full lockdown, subdued production capacity (50-60% over the lockdown period) and recovery potential in 2021, growth would be between negative 3-6% but also remain near zero in 2021.

Scenario three, a depression threatens, owing to prolonged lockdown of over 6 months and economic recovery to remain subdued and sluggish over 2021. Negative growth would prevail for 2020-2022 period – with medium term recovery. In that case, near double digit negative growth in 2020 would be expected. Our results in the first two scenarios are corroborated in other studies, with estimates in the range of -1.6% to -6% for 2020. For Example, in the recent World Bank Africa Pulse, growth is forecasted between -2.1% and -5.1%⁴. On average, as reported in our previous analysis, Africa is yet to grow at an average rate of 7% (SDGCA, 2019). The commodity and tourist dependent nations are expected to be most affected. The current slowdown manifests in both domestic and external transmission mechanisms.

The unprecedented drop in domestic demand is also exhibited by sharp declines in Markit Purchasing Managers Indices (PMI) hitting record low for most of Africa nations covered by the Index⁵. The PMI is a composite index, calculated as a weighted average of five individual sub-components: New Orders (30%), Output (25%), Employment (20%), Suppliers' Delivery Times (15%) and Stocks of Purchases (10%). Readings above 50.0 signal an improvement in business conditions on the previous month, while readings below 50.0 show deterioration. Like Global PMI Composite Output that hit its record low at 26.5 in April, selected country data of African nations captured by the Index show not only they are below 50 but have plunged to record levels, including all African countries shown in Figure 3.1. Over the last couple of months, for example, Uganda's PMI has hit its record low of 21.6 in April, from 45.3 in March and 56.2 in February. Egypt and Kenya also posted a slowdown, respectively from 44.2 in March to 29.7 (record low) in April and 49 in February to 37.5 in March. Low and muted domestic economic activity translates into sluggish domestic taxes and revenue, compromising the primary source of financing for SDGs as envisaged in the Addis Ababa Action Agenda.

Figure 3.1: PMI for Selected Africa Nations Compared to Global



Source: IHS Markit.

⁴<https://www.worldbank.org/en/region/afr>

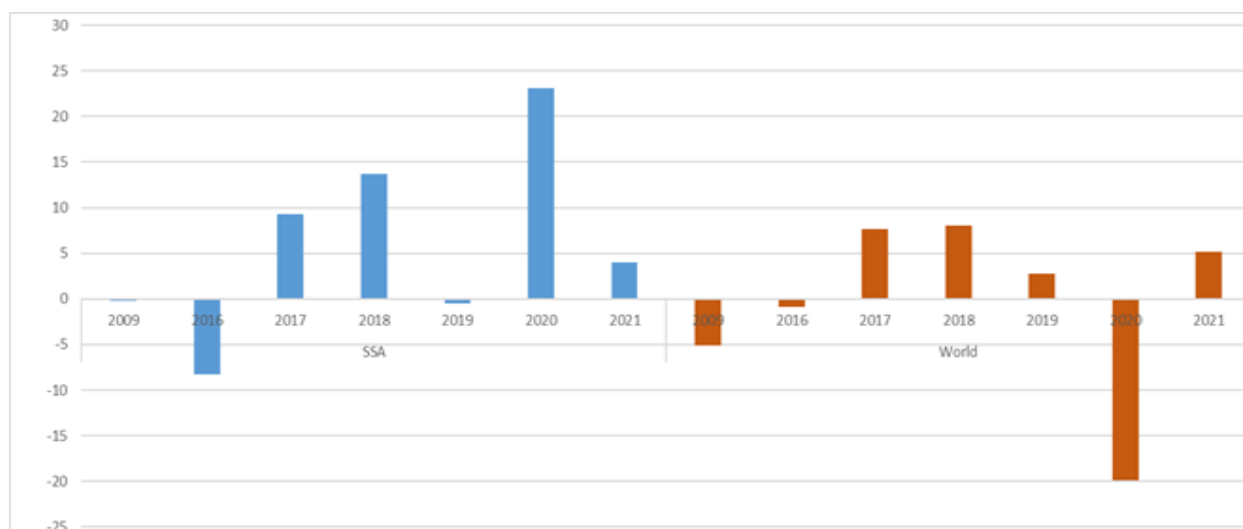
⁵<https://www.markiteconomics.com/public>

The sharp decline in external demand, constrained financial flows and disruption of international supply chains, have negative ramifications for financing for development (SDGs). Worldwide trade fell at record rate in April 2020 and over half of Africa's imports are sourced from highly impacted nations translating into low import revenues⁶. In particular, China and Europe expected to slow down significantly. Previous analysis confirms Africa's growth positive correlation coefficient of 0.3 with China's growth for data running from 2000 to 2017 (UNECA, 2018). Equally, exports revenue has dwindled, largely reflecting a sharp decline in commodity prices and drop in export volume. With over half of countries classified as resource intensive or oil exporters, Africa's vulnerability to the fall in commodity prices is expected to be pronounced. The most significant channel of this shock is through fall in oil prices and yet oil exports which account for 40% of Africa's exports (UNECA, 2020). The price of Brent oil dropped which was nearly USD 70 a barrel on 1 January 2020, has since fallen by more than half reaching USD 19 on the 21st of April. While there has been a recent marginal hike in oil prices, the crude oil futures tumbled and remain subdued owing the outlook risks of COVID-19. The oil crude prices are expected to remain subdued at about US\$ 35 in 2020 and marginally crossing the US\$ 40 in 2021 (WBG, 2020).

Remittances to plummet faster than GDP decline, at the compromise of SDG indicator 17.3.2. Remittance costs also remain at thrice the SDG target of 3%. Remittances have positive correlation with growth in advanced economies, particularly the G7. So, a recession is expected to translate into a sizable reduction of remittances. Recent forecasts indicate that remittances to the world are to reduce by 20% in 2020 on a year to year basis, the fastest decline in over a decade - surpassing the decline associated with the 2018 global financial crisis. Remittances to SSA are also projected to decline even faster at 23% in 2020 - higher than the recent historical annual long term average growth (also see Figure 3.2) (World Bank, 2020a). Owing to a faster reduction of remittances in 2020 than the decline in growth, suggesting SDG indicator 17.3.2 of increasing the volume of remittances as a percentage of GDP will be compromised and could deviate far off the 2030 target. Among the countries that will be seriously affected due to decline of remittances include countries that have more than 10% share of remittances to GDP ((South Sudan (34%), Lesotho (21.3%), Gambia (15.5%), Zimbabwe (13.5%) and Cape Verde (11.7%)) and those countries which are higher recipients of remittances (including Nigeria (US\$ 23.8 billion) Ghana (\$3.5 billion) and Kenya (\$2.8 billion). The cost of transferring remittance to Africa remains highest in Africa compared to other regions and nearly three times the Sustainable Development Goal 10 target of 3 percent.

⁶<https://www.brookings.edu/blog/africa-in-focus/2020/04/30/how-the-afcfta-will-improve-access-to-essential-products-and-bolster-africas-resilience-to-respond-to-future-pandemics/>

Figure 3.2: Annual Growth Rate of Remittances (%)



Source: World Bank (2020).

Similar to remittances, investment and financial flows (portfolio, FDI, ODA and Tourism) are all poised to reduce substantially, increasing pressure on domestic currencies (IMF, 2020a). Official Development Assistance (ODA) as witnessed in the past recessionary tendencies including global financial crisis, reduces as often commitments are given as share of GDP which has already plummeted. ODA flows (which accounted about 3% GNI in 2018 in Africa) are expected to diminish as major donors are experiencing severe effects of the pandemic. Top five ODA donors in 2017 were the United States (21%), EU Institutions (13%), IDA (12%), United Kingdom (7%) and Germany (7%)⁸. Already the global ODA commitments especially from OECD members remain at less than half the 0.7% of GNI commitment and also ODA to Africa continue to remain subdued, recently declining in per capita terms (SDGCA, 2019). With ODA givers heavily affected by the pandemic, the nations (Liberia, Sierra Leone, Central Africa Republic, Zambia and Somalia) highly dependent on foreign aid will severely be affected (World Bank, 2020b). Tourism too has already taken a nosedive due to passenger flight and travel restrictions, border closures, and is expected to remain subdued in 2020 due to constrained income growth by travelers as some may have lost employment. Tourism-dependent economies where it accounts for over 20% of GDP (Seychelles, Cabo Verde, Mauritius, The Gambia, and São Tomé and Príncipe) or where international tourism receipts amount to more than 25 percent of export proceeds (Cabo Verde, The Gambia, Ethiopia, Mauritius, the Seychelles, Tanzania, and Rwanda) will be severely affected (World Bank, 2020b).

Reliant on updated economic impact and earning revisions of the largest multinational enterprises (MNEs), a significant drop in FDI globally is expected by 30% to 40% during 2020-2021 (UNCTAD, 2020). This is due to disruptions of production and supply chain, huge demand shock caused by the pandemic and rapid deterioration of prospects of MNEs. The top 5000 MNEs (which account for a significant share of the FDI) have seen 30% downward revisions of estimated earnings in 2020 which will change depending on the impact of the epidemic. The most affected sectors are the energy including downward trend caused by oil prices and basic metal industries (-208%), airlines (-116), and the automotive industry (-47%) due to global decline in demand.

⁸<http://www.oecd.org/dac/financing-sustainable-development/>

In Africa, the revisions amount to -11% compared to -21% in Asia, -14% in Latin American and Caribbean (UNCTAD, 2020). Recent forecasts also show that Foreign Direct Investment to Africa is poised to even decline faster than remittances, at 35% in 2020.

The equity and portfolio flows to Africa remain limited and capital markets are under-developed (both Equity Capital Markets-ECM (including IPOs and FOs) and Debt Market (Corporate Debt, Sovereign and Super nationals). Though the capital markets in Africa witnessed introduction of innovative financing products (like green bonds (by JSE in South Africa and NSE in Nigeria), social bonds (by Bayport Management in Mauritius), blended finance and local currency bonds), the already low level of capital market activities is expected to further slowdown due to global uncertainties. In 2019, the overall ECM slowed down in value and volume by 44% and 29%, respectively compared to 2018 due to decline of ECM activity in South Africa 69% and 46% in terms of value and volume respectively, and no capital raised in the stock market via IPOs in 2019 (PwC, 2019). Africa ECM transactions between 2010 and 2019 stood 927 raising a total of US\$ 88 billion and has been declining since 2017 (PwC, 2019).

Overall both domestic and external sources of financing are expected to narrow and yet already the financing gap for SDGs for Africa is as much it collectively receives in all sources annually.

Most Africa nations run twin deficits and yet COVID-19 has dented financing prospects. In addition to the current deficit (largely trade deficit), most run fiscal deficits that are expected to widen thereby narrowing further its fiscal space. With looming corporate and household bankruptcy, the consensus among policy makers and economic researchers is that the economic recession requires immediate fiscal firepower as the first line of defense, targeted to affected sectors and vulnerable population (CEPR, 2020). However, in light of the collapse of the main economic components that dominate the tax structure of most Africa economies where indirect taxes (mainly import duty) account for a large share, suggests that domestic revenue will dwindle in absolute terms. Most African countries (with large gaps of revenue to GDP ratio) have started experiencing falling domestic revenue which is considered as the primary engine of sustainable development due to huge disruption in economic activities and loss of jobs. There are also huge concerns that the limited domestic revenue could be further drained due to increase in the scale and magnitude of illicit financial flows (IFFs) (which the continent has been losing USD 60 billion annually) as most authorities in the continent are distracted and overwhelmed by the unrepresented economic fallout. Mis invoicing and other types of IFFs could be more intensified in the awake of the epidemic to illicitly move wealth from weak to hard currencies in developed economies (GFI, 2020).

As depicted in the IMF policy tracker (IMF, 2020b), most African nations have also adopted fiscal expansionary measures to support the respective economies. Consequently, fiscal deficits are expected to widen but at peril of further narrowing the fiscal space. The latter is also exhibited in the call for an economic stimulus of USD 100 billion by African Ministers (OECD, 2020). Sixteen African economies are assessed highly vulnerable to COVID due to being either high debt stressed or debt burdened. The fiscal burden is also exhibited in the 19 African countries that benefited from the IMF debt relief, of which five are in the category of high debt risk and debt distress. In the short term, the debt path is likely to drift off the sustainable debt tangent, suggesting medium term fiscal space for financing SDGs is also dented.

Decent employment enshrined in SDG 8 remains off track, as Africa's employment is predominantly vulnerable - increasingly susceptible to the pandemic, in part due to shortfalls and limited social protection measures as shown by unpropitious progress against SDG 1.3. All sectors have demand and supply distortions. And excluding manufacturing, all the rest of the sectors are expected to see production capacity dwindle, at cost of employment. Nine in ten people (approximately 90%) in Sub-Saharan Africa are in informal employment, the majority in the agriculture sector. In other sectors, informal employment is estimated at 77% (ILO, 2018). Most cannot afford to stay unemployed even in the short term. Unemployment is already rising, associated with business failure due to lockdowns, lack of stimulus packages for firms and ring-fenced protection of workers as well as sectors like tourism that are near shutdown for most of March and April 2020. And yet Africa is dominated by vulnerable employment. Working poor stood at 33% in 2018 and even much higher level for youth that stood at 40% (SDGCA, 2020). Businesses in Africa are largely Small Medium Enterprises (SMEs) accounting for nearly 40% of GDP, and already face sizable financial challenges. More than 90% of these firms are also informal. For example, a recent survey of informal firms in Kampala - the capital city of Uganda indicated that 9 in 10, were already operating below the poverty line (SIHA Network, 2018). The adverse situation is expected to have been aggravated by the lockdowns and disruptions in international trade. The bottom of the pyramid being dominated by women and youth, suggests that they are more on the receiving end of the adversity. Worse still, most of the employees pre-COVID-19 were not covered by any form of social protection. The latest ILO available data reveals that Africa trails the other regions, with only 18% receiving at least one cash social protection benefit compared to Europe and Central Asia (84%), the Americas (68%) and Asia Pacific region (37%). The low coverage is in part attributed to large informal and rural employment that is often not covered by any social security schemes. Even the non-contributory cash transfers remain with limited penetration at 9.5% of the vulnerable population (ILO, 2017). The current crisis is a wakeup call to buffer up social protection measures but also comes with heightened fiscal pressure.

Overall, recovery hangs beyond the near term and is contingent upon global recovery, the traction with finding a vaccine, and government response as well as regional and global collaboration. The risk of U shaped (recession extended into second half of 2020) or W shape (recurring recession in 2021 and lasting effects on economy) recovery is imminent and likely. The predominating uncertainty makes our forecasts indicative. The effect on economic sectors is expected to be heterogeneous with lasting effects expected on services sectors (particularly tourism) and also aggravate the slowdown of the agriculture sector. The macro distortions are not only a discount to growth but are also a threat to development. Similarly, recovery of sectors and largely services will be slow and normalcy hangs in medium term.

4. COVID-19 AND SDGs

4.1. Poverty and Food Security

Reducing poverty in Africa countries remains an unfinished agenda and COVID-19 threatens to move Africa further off track the SDG target. Pre-COVID-19, over 400 million in Africa were still in poverty (using US \$ 1.9 in 2011 PPP) in 2015 and nearly 400 million were projected to remain poor in 2030 translating into 9 in 10 poor are found in Africa⁹. Of which nearly two thirds will be in the rural areas. However, the new forecast from the same source accounting for COVID-19 shock, quick recovery and business as usual approach indicates Africa is likely to have over 480 million poor people in 2030. Consequently, the Pre-COVID-19 2030 poverty forecast which was 26 percent is now forecast at 30 percent in 2030 from current COVID-19 adjusted estimate of 38 percent (512 million) in 2020¹⁰. COVID-19 is likely to push about 60 million people globally into extreme poverty in 2020 (World Bank, 2020d). In an earlier forecast, COVID-19 is likely to lead to an additional 23 million people in Sub Saharan Africa (World Bank, 2020c). Another estimate reveals over 34 million people could fall below extreme poverty line in 2020, of which 19 million will be in African countries (United Nations, 2020).

Our own forecast relies on three assumptions that are consistent with the growth scenarios. In growth scenarios (one and two), we assume a 1%-point reduction in growth translates into 1% recent reduction in per capita income or consumption. In third growth scenario, we adopt a 1% points reduction in growth translating into 1.5% decrease in per capita income or consumption. Resultantly, most optimistic scenario (one) corresponds to 5 percent decline in per capita income or consumption, second and third growth scenarios correspond to 10 percent and 20 percent decline in per capita income or consumption. We also adopt assumption consistent with UNWIDER assumptions, that in the absence of interventions, a decrease in per capita income or consumption decrease by 5 percent could translate into a 5 percent increase in income-based poverty incidence (UN-WIDER, 2020). Based on World Bank poverty data, the results indicate that a relatively small decrease in per capita income or consumption of 5, 10 and 20 per cent due to COVID-19 could lead to an increase in poverty incidence by 1.9, 3.8 and 7.6 percent levels, respectively in 2020 holding other factors constant (see Table 4.1). In absolute terms, under a more optimistic scenario of a 5 percent decrease in per capita incomes, holding other factors constant, the consequences of COVID-19 could push more than 20.4 million into extreme poverty in 2020. Under a decrease of 10 percent per capita income, while keeping other factors constant, the increase in poverty headcount of about 41 million people could be realized. In the worst scenario case of 20 percent, 81.9 million people could live in extreme poverty in the region (Table 4.1).

⁹<https://worlddata.io/>

¹⁰<https://worldpoverty.io/map>

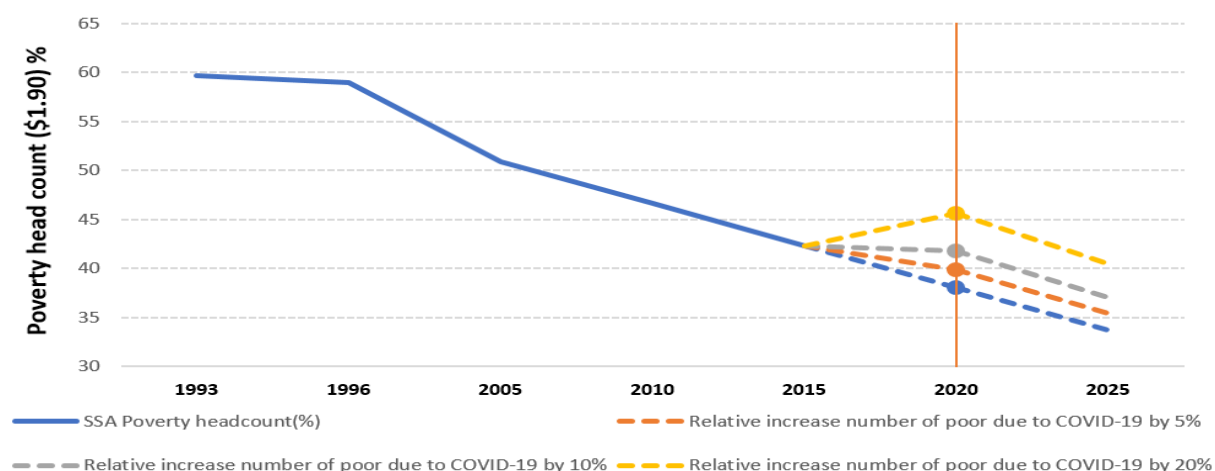
Table 4.1: Additional Poor People due to COVID-19 Pandemic in SSA

Level of Impact ¹¹	People living in Poverty \$1.90/day	Additional people living poverty
5%	430,122,000	20,482,000
10%	450,604,000	40,964,000
20%	491,568,000	81,928,000
Status quo	409,640,000	-

Source: SDGCA computations based on World Bank Development Indicators

Figure 4.1 further shows that the global health crisis could lead to significant increases in poverty in the region that would reverse over two decades of development progress on poverty reduction since 1993. Pre-COVID-19, 2020 poverty forecast indicates that 38 percent of people in Sub-Saharan Africa live in extreme poverty (see Figure 4.1). Depending on the decrease of per capita consumption the consequences of COVID-19 on poverty incidence could increase as much as 40 percent – an increase of about 2 percentage points poverty rate from 38 percent in 2020. Pre-COVID-19 2030 poverty forecast which was 29 percent is now forecast at 31 percent in 2030 from the current COVID-19 adjusted estimate of 38 percent in 2020 (see Figure 4.1). The result suggests the need for protection measures including social assistance transfer funds to fill the existing poverty gaps and raise more vulnerable people to a minimum income base.

Figure 4.1: Impact of COVID-19 on Poverty (SSA), 1993–2015 and Projections to 2030



Source: SDGCA computations based on World Bank Development Indicators

The three scenarios provide insights on the magnitude of impact of COVID-19 and the real challenge it poses on the achievement of Sustainable Development Goal (SDG 1) of ending poverty by 2030 because it increases the relative and absolute size of the number of poor people under the \$1.90 poverty line. With increased poverty, the gap between the rich and poor is envisaged to widen going forward partly attributed to lockdowns, travel restrictions and loss of jobs among others.

¹¹Level of impact at 5, 10, and 20 percent corresponds to 1.9, 3.8 and 7.6 percent increase in poverty incidence.

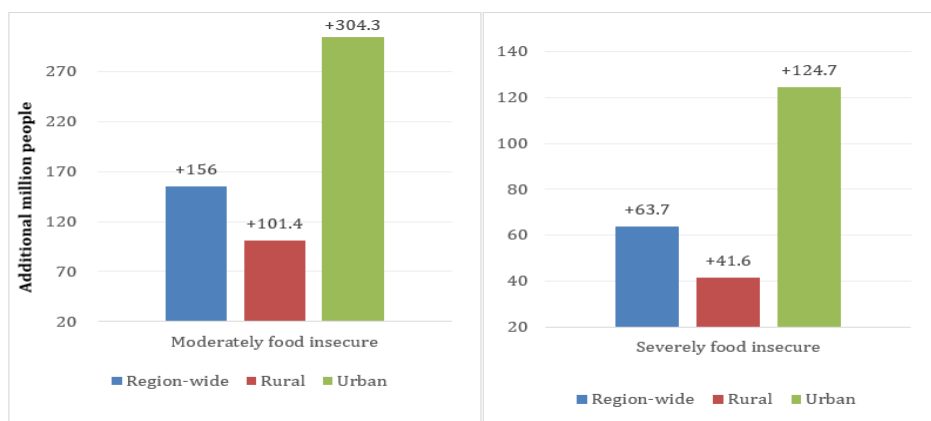
Most African governments have adopted and enforced protection and recovery policy measures including social and economic relief for people without jobs, access to health services, and systems of health care, especially those performing jobs in risky and informal sectors of the economy. However, the severity of the effects will depend on how long the pandemic takes and the extent to which the national governments intervene.

Minimizing food supply chain disruptions to the extent possible could reduce the worrying levels of hunger and undernourishment as COVID-19 threatens African economies in realization of SDG2.

The impact of COVID-19 pandemic is envisaged to be greater among the bottom segment of the population grappling with food shortage and malnutrition, and food insecurity is likely to increase due to travel restrictions. Pre-COVID-19 evidence revealed that 52.5 percent of the 1,288 million people were moderately food insecure while 21.5 percent were severely food insecure (FAO, 2019). Evidence suggests that more than 73 million people from 46 African countries could experience crisis and worse levels of acute food insecurity due to a combination of government measures on COVID-19 (WFP, 2020). It is further estimated that one in five people in Africa are undernourished, and that 30 percent of children under five – approximately 59 million children – have stunted growth, greater than the global average of 21.9 percent (WHO, 2020a). Averting food crises cannot wait until the health crisis due to the pandemic is resolved. In the absence of protection and recovery policy measures amid COVID-19 such as fiscal stimulus and expansion of social safety nets, the impacts on food security could be severe. IFPRI estimates the impact of COVID-19 on food poverty could increase based on three scenarios of 23, 15 and 44 percent at regional, rural and urban levels in Sub Saharan Africa (IFPRI, 2020a). The three scenarios are based on the fact that short disruptions to economic activities between 2 and 3 months, social distancing measures covering on average 40-50 percent of the population and post-harvest losses of perishables of 5 percent due to logistical issues. Consequently, disruptions on food supply chain translates into a reduction in household consumption and income. In the absence of social and economic mitigation measures, food availability and costs increase and resulting into more rural and urban population consuming less sufficient quantities and quality of food.

Based on the strong link between poverty and food insecurity (IFPRI, 2020a), COVID-19 impacts on food access in most African countries could be severe. Our results based on the three scenarios indicate that holding other factors constant, a 23 percent likelihood of purchasing sufficient food at regional level could witness a potential increase in the number of moderately food insecure people, relative to the baseline of more than 155 million people in 2020. In rural settings, a 15 percent chance of purchasing sufficient food, while keeping other factors constant, could increase the number of food insecure of about 101 million people. However, in the urban setting, a 44 percent likelihood of purchasing sufficient food could translate into more than 304 million people (Figure 4.2). Similarly, under a severely food insecure situation, an additional millions people of 63.7, 41.6 and 124.7 could be severely food insecure for 23, 15 and 44 percent due to COVID-19 pandemic. Our estimates are collaborated with earlier findings that the pandemic is likely to more than double the number of people facing hunger to 43 million with urban poor at most risk (WFP, 2020).

Figure 4.2: Impact of COVID-19 on Food Security in Sub Saharan Africa



Source: SDGCA computations based on IFPRI simulations and FAOSTAT

The emergency of swarms of desert locusts in the region has deepened the threat to food security brought on by the COVID-19 pandemic. Over 13 million people in the region are experiencing one of the worst infestations of desert locusts with destructive effects in countries already affected by recurrent drought, conflict and high food prices (IPC, 2020). Our findings confirm that the effects of COVID-19 could aggravate hunger and food crises since majority of the people in Africa rely on agriculture for survival.

4.2. Health and COVID-19

The health crisis in an epoch of dwindle health per capita spending, and weak health systems is expected to reverse recent gains against SDG 3. In the Pre- COVID era, SDGCA (2019) forecasts showed that Africa in the business as usual trajectory will struggle to meet the health SDG targets by 2030. The same fact was corroborated in the Africa SDG index 2019 where Africa remained off track with meeting the health targets. The COVID 19 pandemic came on a fragile ground of the health system in Africa under governed, underfunded with a shortage of health workforce and medical products, weak health infrastructure, and weak service delivery. The service delivery is less accessible, efficient, low quality and less acceptable to meet the needs of the people. In addition, Africa is facing many other threats such as an increase in non-communicable diseases and emerging diseases like Ebola. Already over 100 outbreaks and health-related emergencies have occurred annually in Africa with high morbidity and mortality (WHO, 2017). Africa funding gap for health predominates in part reflecting of low per capita government expenditure on health in Africa, which is very low USD 51.6 compared to USD 1,858.3 in Europe. The burden of health expenditure continues to be borne by households than government, as exhibited by increasing out of pocket expenditure (UNECA, 2019). Africa already has 110 million people who were found in Africa (more than double the number in the year 2000) in category of catastrophic expenditure, with the out-of-pocket health spending exceeding 10% of the household budget (total consumption or income) and expected to increase owing to dwindle of income and increased health risks.

Increased poverty, reduced physical access, lack of health resources and disruption in supply chain of health inputs as a consequence of COVID-19 combined with a lack of social safety nets bring financial, psychological, physical and other barriers to health-care access. As an impact, the health system will be faced with a decrease in the coverage of the essential services which will be

associated with an increase of mortality rate. Our qualitative analysis reveals that health coverage of the essential services has already been compromised, resultantly expected to be associated with an increase of overall mortality rate (including COVID-19 deaths).

Significant disruption to vaccination efforts and surveillance of vaccine-preventable diseases on the continent is likely, at the risk of activities may lead to the outbreaks of vaccine-preventable diseases; and children may pay a heavy price leaving around 21 million children who would have been vaccinated, unprotected. Measles preventive mass vaccination campaigns in Chad, Ethiopia, Nigeria and South Sudan have been suspended because of COVID-19. Malaria, one of the leading killer diseases in Sub Saharan Africa, is expected to cause nearly 800,000 – back to a mortality rate of the 2000s¹². Malnutrition is a factor of poor health with short and long term consequences and is one of the factors of premature death, mainly in children under the age of five. The economic crisis following COVID-19 could have critical implications for the health of millions of already malnourished children in Africa and could increase in number where 1 in 5 people in Africans are undernourished (WHO, 2020b). As COVID-19 spreads, assuming poverty and food insecurity grow dramatically, in a more optimistic scenario (IFPRI, 2020a), Africa could witness an additional number of undernourished of 64.9 million people – an increase of 23 percent from 282 million people in 2020. Before COVID-19, undernourishment forecast which was 26 percent is now forecast at 32 percent in 2030 from the current COVID-19 adjusted estimate of 26 percent in 2020. This suggests that without social and economic relief measures the global health crisis could pose real challenges to people in such fragile contexts in terms of access to food and medical care.

With similar assumptions and consistent with an IFPRI study where it is estimated that global per capita calorie consumption will be 5 per cent lower in 2020 while in sub-Saharan Africa the per capita calorie consumption will be 10 percent lower (IFPRI, 2020b). Though the projected per capita calorie decline is slightly below that predicted by USDA (2010), the result implies that the poorest segment of the population could be faced with an increasing risk of acute food insecurity as the pandemic evolves. An estimated 12 million children under five years old in West Africa are likely to be acutely malnourished between June to August, increasing by 4 million on a year on year basis.

Accessibility to sexual and reproductive health services has been limited mostly due to the measures taken to contain the virus, in particular the health resources are skewed to mitigation and containment of the virus. Women reduced their contact with the health facilities for fear to be exposed to the virus (UNFPA, 2020). Over 47 million women in 114 low- and middle-income countries are projected to be unable to use modern contraceptives if the average lockdown, or COVID-19-related disruption, continues for 6 months with major disruptions to services (UNFPA, 2020). A recent published study targeting 118 low-income and middle-income countries revealed that 253,500 additional child deaths and 12,200 additional maternal deaths are expected from the least severe scenario (coverage reductions of 9.8–18.5% and wasting increase of 10%) over 6 months while for the most severe scenario (coverage reductions of 39.3–51.9% and a wasting increase of 50%) over 6 months would lead to an additional 1,157,000 child deaths and 56,700 maternal deaths (Starbuck, 2020). There is a risk of reversing the HIV/AIDs progress because of the COVID-19 pandemic (WHO, 2020c).

¹²<https://www.who.int/publications-detail/the-potential-impact-of-health-service-disruptions-on-the-burden-of-malaria>

In 2018, about 25.7 million people were living with HIV globally, 16.4 million (64%) were on antiretroviral therapy (ART), and 470,000 in sub-Saharan Africa. The economic crisis with its corollaries of loss of livelihoods and employment combined with lack of access to health service could increase unprotected sex, sexual violence and exploitation, transactional sex and sex work, leading to an increase in new HIV infections. In addition, there is a risk of interruption of supplying ART to those on treatment because of disruptions to the supply chain or inaccessibility to the service because of the COVID-19. Africa could register 500,000 extra deaths from AIDS-related illnesses, including from tuberculosis during the period 2020–2021. While, the incidence of the COVID-19 is still relatively low in Africa and the hospitals seem to operate as usual, the unabated increase would overwhelm health infrastructure translating into deaths. The hospital bed capacity in Africa is very low 1.2 per 1000 people compared to 6.1 in Europe. In addition, they are under-equipped in Personal Protective Equipment and ventilators to take care of patients. Such situations will collapse the system in case of severe Coronavirus waves in the continent.

4.3. COVID-19 Impact on Education

Education outcomes will only be deferred or delayed (at risk of unpending SDG progress) but also education inequalities between the poor and the rich are expected to widen. The Coronavirus spread has, in the short term, had multifaceted/sectoral consequences, including the impact on the education sector with 90% of the world student population affected by the closures of schools (186 country-wide closures across the world) in a bid to contain the further spread of the virus. Globally, 1.25m students will be affected and consequently adversely affecting SDG 4. Africa has not been spared, as nearly all countries in Africa have closed schools. For a select few, classes are being offered only through distance learning through the virtual learning platforms. In Africa, this means that the number of left out students will grow, for a continent that still suffers from fundamental challenges of access to the internet. Approximately 1 in 5 people in Africa has access to the internet but affordability is another question, as Africa has the most expensive broadband prices. This implies that the baseline trend to meeting SDGs will be tilted to the downside and yet Africa was off track to meeting the SDG targets as revealed in the Africa SDG Index 2019 (SDGCA & SDSN, 2019). Currently, of all regions, sub-Saharan Africa has the highest rates of education exclusion. Over one-fifth of children between the ages of about 6 and 11 are out of school, followed by one-third of youth between the ages of about 12 and 14. Across the region, 9 million girls between the ages of about 6 and 11 have never been to school at all, compared to 6 million boys.

Nearly 300 million African students (previously enrolled) are out of school due to measures to stop the spread of COVID-19, of which only 10 million are in higher education¹³. The immediate impacts of this crisis on education include poor learning outcomes. In the aftermath, it is imperative to sorely look for alternative means and approaches in order not to leave behind students with limited access to computers and good internet. Even where countries are better prepared to provide 'learning at a distance' for children during school closures, girls and boys living in rural areas, from low-income households, living with disabilities and those affected by conflict crises are struggling to access distance learning. There are few scalable solutions for countries with limited internet connection and access to digital devices. According to Petrie et al. (2020), educators have been enforced into teaching for a system that is not tested. As a result, we are far from using

¹³<https://en.unesco.org/fieldoffice/santiago/covid-19-education-alc/monitoring>

best practices for 'online learning' and are scrambling for 'emergency online homeschooling'. The backdrop also suggests that education inequalities between the poor and the rich will widen, yet already in educational completion remains tilted in favor of the richest compared to the poorest across countries in Africa (SDGCA, 2020).

With poverty and income inequality also envisaged to increase in part attributed to lockdowns and loss of jobs, the deviation from SDGs targets is expected. The women are dominating the poor education outcomes already. Even before COVID19, it was estimated that it could take another 100 years before all girls in Sub-Saharan Africa have the opportunity to complete a full 12 years of education, which is a commitment in the SDG (SDGCA,2020).

5. TAKEAWAYS

Recovery process should not aim at merely going back to normal as normal never was. Africa was largely off track on all the 17 SDGs. Business as usual will not be sufficient, given Africa's unpropitious starting point. Commendably, the unprecedented level of collaborative trust and effective engagement between government and citizens must be maintained and extended to the post COVID-19 reforms. We strongly recommend affirmative policies and actions aimed addressing a recovery trilemma of averting a health crisis, recovery of the economies, and protecting the vulnerable while mitigating inequalities.

Emphasis must immediately and continuously be focused on the People Pillar for SDGs. The first line of redress is increased earmarked and protected spending to the health sector inter alia for early detection of the infection, containment, prevention, research and treatment. Real time reporting mechanisms are important for effective responses and Africa lag in contraction and spread of the virus, is an avenue for lesson learning. The COVID-19 mitigation and related measures require a multi-sectoral approach, thus the call for focused support to the respective collaborative arrangements as well as for effective communication and engagement with the public.

Investing in an economically strategic sector of agriculture through adequate provision of credit, seed and other extension support services is critical to addressing rising food insecurity, poverty reduction and employment as well foreign exchange earnings. Addressing agriculture growth and productivity is proven to be poverty eradicating particularly for the rural population. A value chain approach with a comprehensive consideration of the implementation and regulatory frameworks is required.

Education cannot wait so long. Governments must focus on interventions that can enhance inclusive education: interventions such as school feeding, free school uniforms and provisional textbooks have been documented as factors to reduce drop-out rates which are expected to increase without redress due to COVID-19.

Protection of the bottom of the Pyramid and Vulnerable. Promoting poverty, inequality and social inclusion responsive budgeting – with earmarked incremental ring fencing of this type of expenditure. Social protection measures (cash transfers) need to be espoused or entrenched in budgetary appropriations - targeting the two thirds of the employment that are vulnerable.

The vulnerability of employees also mirrors the extent of firms that are largely informal. In both instances, there is a need for data guided responses, thus a need for real time COVID-19 multi sectoral evidence gathering through the use of developing innovative and digital systems for data collection, processing and reporting.

Addressing fiscal vulnerability. Governments should collaboratively with the international community advocate for debt restructuring (including rescheduling of debt service) to allow space to implement both short term stabilization measures and medium term goals like the 2030 Agenda for Sustainable Development.

REFERENCE

- CEPR. (2020). Centre for Economic Policy Research. Economics in the Time of COVID-19. A CEPR Press Voxeu.Org Ebook. <https://voxeu.org/system/files/epublication/covid-19.pdf>.
- FAO. (2019). The State of Food Security and Nutrition in the World 2019. Safeguarding against Economic Slowdowns and Downturns. Food and Agriculture Organization of the United Nations (FAO), Rome, Italy.
- FAO. (2020). Coronavirus Disease 2019 (COVID-19). Addressing the Impacts of COVID-19 in Food Crises (April–December 2020) – May 2020 Update. Rome, Italy.
- GFI. (2020). Covid-19 and Illicit Financial Flows: What’s to Come. <https://gfintegrity.org/covid-19-and-illicit-financial-flows-whats-to-come/>.
- IFPRI. (2020a). Poverty and Food Insecurity Could Grow Dramatically as COVID-19 Spreads. IFPRI Blog, April 2020. <https://www.ifpri.org/blog/poverty-and-food-insecurity-could-grow-dramatically-covid-19-spreads>.
- IFPRI. (2020b). 2020 Global Food Outlook. Trends, Alternatives, and Choices. A 2020 Vision for Food, Agriculture, and the Environment Initiative. IFPRI, Washington, D.C.
- ILO. (2017). World Social Protection Report 2017–19: Universal Social Protection to Achieve the Sustainable Development Goals International Labour Office, Geneva.
- ILO. (2018). World Employment and Social Outlook: Trends for Women 2018 – Global Snapshot International Labour Office, Geneva.
- IMF. (2020a). Regional Economic Outlook: Sub-Saharan Africa. Covid-19: An Unprecedented Threat to Development. Washington, DC.
- IMF. (2020b). International Monetary Fund Policy Tracker. <https://www.imf.org/en/topics/imf-and-COVID-19/policy-responses-to-covid-19>.
- IPC. (2020). IPC Food Security Phase Classification and Desert Locusts. http://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/ipc-afi-eca-desert-locusts-alert-12-02-2020.pdf.
- McKibbin, W., & Fernando, R. (2020). The Global Macroeconomic Impacts of COVID-19: Seven Scenarios. https://www.brookings.edu/wp-content/uploads/2020/03/20200302_COVID-19.pdf.
- OECD. (2020). COVID-19 and Africa: Socio-Economic Implications and Policy Responses. <http://www.oecd.org/coronavirus/policy-responses/covid-19-and-africa-socio-economic-implications-and-policy-responses-96e1b282/>.
- Petrie, C., Katija, A., Pukhraj, R., Romaine, J., Gilliland, D., Tuominen, S., et al. (2020). Spotlight: Quality Education for All During Covid-19 Crisis. https://hundred-cdn.s3.amazonaws.com/uploads/report/file/15/hundred_spotlight_covid-19_digital.pdf.
- PwC. (2019). Africa Capital Markets Watch 2019. <https://www.pwc.co.za/en/publications/africa-capital-markets-watch.html>.
- SDGCA. (2019). Africa 2030. Sustainable Development Goals Three-Year Reality Check . Kigali, Rwanda.
- SDGCA. (2020). Africa 2030 SDGS with Social Boundaries. Forthcoming. Kigali, Rwanda.
- SDGCA, & SDSN. (2019). Africa SDG Index and Dashboards Report 2019. Kigali and New York. <https://sdgindex.org/reports/2019-africa-sdg-index-and-dashboards-report/>.
- SIHA Network. (2018). The Invisible Labourers of Kampala. A Research Paper on Women Street Vendors in Kampala. <https://sihanet.org/wp-content/uploads/2019/09/the-invisible-laborers-of-kampala.pdf>.
- Starbuck, E. S. (2020). Covid-19: Epidemiology & Priorities for Ngo Response. https://resourcecentre.savethechildren.net/node/16881/pdf/covid-19_pandemic_ready1.pdf.
- UN-WIDER. (2020). Estimates of the Impact of COVID-19 on Global Poverty. UN-WIDER Working Paper 2020/43. April 2020.

- UN. (2020). Covid-19 Pandemic is Exacerbating Poverty and Inequality. <https://www.un.org/development/desa/en/news/policy/wesp-mid-2020-report.html>.
- UNCTAD. (2020). Investment Policy Monitor. Investment Policy Responses to the COVID-19 Pandemic. Special Issue No.4. https://unctad.org/en/publicationslibrary/diaepcbinf2020d3_en.pdf.
- UNECA. (2018). Africa Sustainable Development Report: Towards a Transformed and Resilient Continent. Economic Commission for Africa (ECA), Addis Ababa, Ethiopia.
- UNECA. (2019). Economic Report on Africa 2019: Fiscal Policy for Financing Sustainable Development in Africa. Economic Commission for Africa (ECA), Addis Ababa, Ethiopia.
- UNECA. (2020). COVID-19: Lockdown Exit Strategies for Africa. Economic Commission for Africa (ECA), Addis Ababa, Ethiopia.
- UNFPA. (2020). Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-Based Violence, Female Genital Mutilation and Child Marriage. Interim Technical Note. April 2020.
- USDA. (2010). Food Security Assessment, 2010-20 / GFA-21. Economic Research Service/USDA. https://www.ers.usda.gov/webdocs/publications/37229/13462_gfa21_1_.pdf?v=0.
- World Bank. (2020a). COVID-19 Crisis through a Migration Lens. Migration and Development Brief, No. 32. Washington, D.C. : World Bank Group.
- World Bank. (2020b). Africa's Pulse, No. 21, Spring 2020 : An Analysis of Issues Shaping Africa's Economic Future. World Bank, Washington, Dc. © World Bank.
- World Bank. (2020c). The Impact of COVID-19 (Coronavirus) on Global Poverty. <https://blogs.worldbank.org/opendata/impact-covid-19-coronavirus-global-poverty-why-sub-saharan-africa-might-be-region-hardest>.
- World Bank. (2020d). World Bank Group: 100 Countries Get Support in Response to Covid-19 (Coronavirus). <https://www.worldbank.org/en/news/press-release/2020/05/19/world-bank-group-100-countries-get-support-in-response-to-covid-19-coronavirus>.
- WBG. (2020). Commodity Markets Outlook, April. World Bank, Washington, Dc.
- WFP. (2020). Global Report on Food Crises (GRFC). Joint Analysis for Better Decisions. https://www.fsinplatform.org/sites/default/files/resources/files/grfc_2020_online_200420.pdf.
- WHO. (2017). Leave No One Behind: Strengthening Health Systems for Uhc and the Sdgs in Africa. Brazzaville: WHO Regional Office for Africa; 2017.
- WHO. (2020a). Coronavirus Disease 2019 (COVID-19) Situation Report – 30. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200219-sitrep-30-covid-19.pdf?sfvrsn=3346b04f_2.
- WHO. (2020b). World Health Organization. COVID-19 Who African Region: External Situation Report 11 / 2020. World Health Organization. Regional Office for Africa.
- WHO. (2020c). WHO Press Release. The Cost of Inaction: COVID-19-Related Service Disruptions Could Cause Hundreds of Thousands of Extra Deaths from HIV. 11 May 2020. <https://www.who.int/news-room/detail/11-05-2020-the-cost-of-inaction-covid-19-related-service-disruptions-could-cause-hundreds-of-thousands-of-extra-deaths-from-hiv>.

