Understanding impacts and accelerating the Sustainable Development Goals in a moment of multiple overlapping crises
Authors
Babatunde Abidoye
Taylor Hanna
Jonathan D. Moyer
Maria Alice Moz-Christofolletti
Edvard Orlic
Laurel Patterson

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Executive Summary

As we rapidly approach 2030, we are still far from fulfilling the social contracts for achieving a comprehensive, far-reaching and people-centred universal and transformative goals and targets made by global leaders on behalf of the people they serve. The global COVID-19 pandemic has reversed progress towards many of the Sustainable Development Goals (SDGs), and the Human Development Index (HDI) has declined two years in a row, erasing five years of progress in human development.

Despite the devastating news on setbacks in achieving the SDGs and the Secretary-General’s Sustainable Development Goals Report 2022, the call by world leaders since 2019 for a Decade of Action still remains valid with added urgency. The question becomes: What type of targeted investments could support and get countries back on track to achieving SDG targets?

By linking short-term policy responses with long-term development objectives, UNDP, in partnership with the Pardee Center for International Futures at the University of Denver, applies futures modelling to respond to these questions. The model helps policymakers understand the effects of targeted interventions in inclusive green growth, governance, social protection and digitalization on several development indicators. This analysis complements and extends a two-series report by expatiating on the benefits of reducing the impact of current development issues regarding debt and vaccine equity.

This assessment is based on four scenarios: (i) the No COVID scenario, which presents the path we were on prior to COVID-19; (ii) the COVID Baseline scenario, built on current trends of GDP growth and mortality, and amended with updated debt ratios; (iii) the High Damage scenario, in which we project a future with protracted economic recovery, and (iv) the SDG Push scenario, a potential path for accelerated recovery through focused and targeted policy investments based on the assumption that every country would achieve COVID-19 vaccination rates of 70 percent already in 2023.

Echoing the importance of immediate action at the global, local and national levels, this report finds there is a lower benefit from the SDG Push with respect to the one described in the 2021 publication. While the current report finds that targeted set of interventions reduce the number of people in extreme poverty by 95.4 million by 2030, the previous iteration of the IF model found that poverty was reduced by 124.5 million by moving targeted set of interventions under the updated SDG Push scenario to start two years later (in 2023) than in previous version of the report. Two years lost in accelerating the SDGs has reduced the gain in poverty alleviation by about 30 million people by 2030. Despite the time lost, the SDG Push still performs significantly better than the No COVID scenario.

The results from this report indicate that, under the COVID Baseline scenario, 665 million people could live with less than $1.90 per day in the absence of further interventions by 2030; in the High Damage scenario, this number increases to 737.5 million. The results show the long-term impact of COVID-19 and multiple crises on development trajectory and the need to accelerate achievement towards the SDGs.

A set of SDG-targeted interventions could decrease the number of people living in extreme poverty by 95.4 and 243 million by 2030 and 2050, respectively. This set of
focused investments could lead to the achievement of poverty, health and education targets in more than 60 percent of countries by 2030 and more than 80 percent by 2050. As many as 16 countries could achieve the target of eliminating extreme poverty by 2030 more than three years earlier, on average, with the SDG Push scenario compared to the COVID Baseline scenario. Similarly, 17 countries would gain a significant number of years in the SDG Push scenario compared to what they could achieve in the COVID Baseline scenario by 2050.

The benefits from the SDG Push are greatly extended to the most vulnerable countries, such as those at high risk of debt distress: compared to the COVID Baseline scenario, 19.9 million people by 2030 and 63.9 million people by 2050, living in these countries alone could be lifted out of poverty if investments are targeted for the SDGs. Similarly, improvements in vaccination rates alone could reduce the total number of people living in extreme poverty by 6.1 by 2030 and 4.6 million people by 2050, most of whom in Africa.

As we recover from the consequences of the COVID-19 pandemic, governments and the global development community are faced with important choices. As emphasized by the United Nations (2019) on sustainable development, more tailored, targeted and participatory interventions and processes might offer a potential way forward. UNDP’s SDG Acceleration Diagnostic helps national stakeholders create evidence-based national policy options and pathways to drive the furthest development impact. Building on UNDP’s SDG Push scenario, the Diagnostic supports governments to mainstream and disseminate accelerators to recover better from the COVID-19 pandemic.
1. Introduction

The COVID-19 pandemic is the defining global health crisis of our time and one of the greatest challenges we have faced since World War II. Despite a short-term recovery in 2021 in developed economies, spurred by availability of vaccines and large fiscal stimulus, the recovery has been uneven across countries and regions. Global economic risks have also been aggravated by a sharp increase in global oil and food prices driven by geopolitical events, spurring inflation, and leading to slower economic growth due to limited fiscal space and tightening monetary conditions (United Nations, Inter-agency Task Force on Financing for Development, 2022).

To understand the impact of the pandemic on different aspects of development, impact analyses are critical to identify those most in need of support. This flagship report applies an integrated modelling approach to assess the effect of COVID-19 on long-term sustainable development indicators. This report contributes to the literature by providing a comparative analysis using credible policy options that countries can act on today and by estimating their impacts across development systems and over a longer-term horizon. These policy options reflect the potential for profound acceleration through an integrated set of investments in what we call the SDG Push scenario, which focuses on green growth, governance, social protection and digitalization.

This report builds on the second flagship report of 2021, Leaving no one behind: impact of COVID-19 on the sustainable development goals (SDGs) (Abidoye et al., 2021) by updating the scenarios in the context of where we currently are – a world where shocks reverberate and intersect with structural vulnerabilities. As we saw with COVID-19 recovery, the poorest countries and most vulnerable groups were hit the hardest. The situation is aggravated by the increasing frequency and intensity of climate-related shocks, which are disproportionately affecting some of the world’s most vulnerable economies, leaving them further behind. Policymakers in low-income countries are faced with the compound challenge of maintaining spending to cope with rising poverty and hunger while facing limited fiscal capacity and rising debt sustainability risks. This situation limits SDG investments that could boost productive capacity in countries, increase national income and consequently help generate government revenue to meet debt service requirements. Given this context, the report places a special focus on countries currently in debt distress or at high risk of entering one, as well as countries with significant constraints in improving COVID-19 vaccination rates.

Like the previous flagship reports in this series, this study examines potential pathways of the impact of COVID-19 on development outcomes in the areas of poverty, malnutrition, health, education, water and sanitation. The assessment is based on four scenarios: (i) the No COVID scenario, which presents the path we were on prior to COVID-19; (ii) the COVID Baseline scenario, built on current trends of GDP growth and mortality, and amended with updated debt ratios; (iii) the High Damage scenario, in which we project a future with protracted economic recovery, and (iv) the SDG Push scenario, a potential path for accelerated recovery through focused and targeted policy investments based on the assumption that every country would achieve COVID-19 vaccination rates of 70 percent already in 2023.

Our analysis shows that by 2030, there would be 665 more people in extreme poverty around the world
under the COVID Baseline scenario, and an increase to 737.5 million under the High Damage scenario. Under the COVID Baseline scenario, 26 percent, or 175 million of all people pushed into poverty by 2030 would live in countries with high debt vulnerabilities. Between 11 and 25 million additional people would be directly pushed into poverty by the pandemic under the COVID Baseline and High Damage scenarios relative to the No-COVID.

However, with a targeted set of interventions in the green economy, governance, social protection and digitalization, the number of poor people could be reduced by 95.4 million compared to the COVID Baseline scenario by 2030 and decrease further by 243 million by 2050 worldwide. Most importantly, between 27 percent by 2030 and 30 percent by 2050 of the benefit of reduced poverty is in countries with high debt vulnerability. Hence, an integrated set of interventions can still contribute to lifting 21.6 million people out of poverty by 2030 and a further 63.5 million by 2050. In addition, the SDG Push scenario is helping countries gain several years of progress. By 2030, as many as 16 countries could achieve the target of eliminating extreme poverty more than three years earlier, on average. Results are even more significant in the long-term as 17 countries would be gaining eight years, on average, in the SDG Push scenario compared to what they could achieve in a COVID Baseline by 2050.

Globally, the SDG Push could also achieve several other SDG targets related to health and educational outcomes and access to water and sanitation. For instance, it could reduce neonatal and child mortality in more than 130 countries, thus reaching 70 percent and 74 percent, respectively, of all countries. This could further increase to 95 percent of neonatal mortality and 93.5 percent of child mortality by 2050 than that projected under the COVID Baseline scenario.
2. A long way to go – challenges to SDG attainment

The COVID-19 crisis and the responses to control its spread (lockdowns, border closures, etc.) have disrupted economies, threatened food security, and increased the vulnerability of individuals to poverty (McDermott and Swinnen, 2020, 2022). Indeed, in 2020, the pandemic caused a global recession of 3.1 percent, more pronounced in advanced economies (4.5 percent) than in emerging economies and developing countries (2.1 percent) (IMF, 2022). Despite a short-term recovery in 2021, mostly in high-income countries, the world faces renewed uncertainty exacerbated by military conflict in Ukraine, rising inflation and interest rates. Moreover, problems that predated COVID-19 have not gone away and as a result, they are likely to jeopardize progress towards the SDGs.

During the pandemic, deficits increased and debt accumulated much faster than they did in the early years of other recessions, including the greatest, i.e. the Great Depression and the Global Financial Crisis. About 60 percent of least developed countries (LDCs) and other low-income countries (LICs) are now assessed as being at high risk of debt distress or in debt distress by the IMF/World Bank Debt Sustainability Framework, a substantial increase from about 30 percent in 2015.

Two-thirds of external ‘debt service at risk’ is not covered by current relief initiatives, putting at risk years of steady progress on poverty and the future resources needed to deal with climate change. UNDP’s analysis shows that a minimum of US$598 billion of external public debt service payments across the 72 countries is due in the 2021–2025 period, with US$311 billion owed to private creditors.

This mountain of debt has important implications for additional public investment in SDG attainment because it limits the ability of countries to provide essential services to their citizens and progress on SDG targets. Given that investment needs have been estimated to reach US$224 billion (Schmidt-Traub, 2015) – about one-third of GDP in low-income
countries, further debt financing will become more binding. Recent research by the United Nations Conference on Trade and Development (UNCTAD), which estimates the cost to government budgets of achieving SDGs 1–4 by 2030 for a sample of low-income, middle-income and upper-middle-income countries, found that the increase in public debt is likely to be unsustainable across all estimated scenarios if additional expenditures are fully funded through debt issuance on commercial terms (United Nations Inter-agency Task Force on Financing for Development, 2022).

The poorest developing countries pay 14 percent of revenue for interest on their debt, almost four times higher than developed countries, at 3.5 percent (United Nations Inter-Agency Task Force on Financing for Development, 2022) Globally, many developing countries were forced to cut budgets for education, infrastructure and other capital spending as a result of the pandemic. These challenges are already exacerbated by sharp increases in food and energy prices, higher inflation and lower growth causing a humanitarian crisis in many of highly indebted developing countries. Recent estimates by IMF (IMF WEO, April 2022) indicate that low-income economies face persistent GDP and revenue losses, implying lower fiscal capacity, pushing countries further back from achieving the SDGs.

Debt financing enables countries to respond to emergencies such as the pandemic and to fund long-term investments, including in climate action and the SDGs. Yet, the size of SDG financing gaps puts into question developing countries’ ability to mobilize sufficient financing to achieve the SDGs while maintaining sustainable debt levels, particularly since debt levels are already elevated in many LICs and LDCs.

Progress in domestic resource mobilization, improved resource allocation in national budgets, and efficient public debt management would help to reduce the gap. However, even such improvements would be insufficient on their own, and the SDGs cannot realistically be financed fully on commercial terms. In light of large investment needs related to the 2030 Agenda for Sustainable Development, the SDGs will not be achieved without substantial support from the international community through debt service relief programmes, grant financing, and the promotion of initiatives for responsible borrowing and lending.
3. The global impact of alternative scenarios on SDG indicators

This section analyses how COVID-19 affected progress towards the SDGs and discusses how a targeted set of interventions may help countries to get back on track towards achieving them.

The outbreak of COVID-19 and its spread around the world in 2020 shed new light on how recent decades of progress might immediately be disrupted. Even today, there are major uncertainties with respect to economic recovery, exacerbated by soaring energy prices, the food crisis and supply chain disruptions. Productivity losses, some of which are predicted to be long-term, disruption of governmental revenue and expenditure patterns are likely to influence annual fiscal balances and the capacity of governments to devote their resources to SDG attainment. How this will play out will vary by country and it is important to analyse the implications of lower economic growth and its consequences.

In general, the analysis shows that poverty and uncertainty regarding food security is at risk over the long term (Table 1).

Table 1. Selected SDG indicators under different scenarios

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No COVID</td>
<td>COVID</td>
</tr>
<tr>
<td>Children under 5 mortality ratea</td>
<td>29.4</td>
<td>30.6</td>
</tr>
<tr>
<td>Improved sanitation access (%)</td>
<td>85.6</td>
<td>84.7</td>
</tr>
<tr>
<td>Improved water access (%)</td>
<td>93.9</td>
<td>93.5</td>
</tr>
<tr>
<td>Malnourished children under 5c</td>
<td>79.0</td>
<td>82.9</td>
</tr>
<tr>
<td>Malnourished population c</td>
<td>476.3</td>
<td>495.9</td>
</tr>
<tr>
<td>Maternal mortality ratio b</td>
<td>159.4</td>
<td>162.6</td>
</tr>
<tr>
<td>Neonatal mortality rate c</td>
<td>14.9</td>
<td>15.4</td>
</tr>
<tr>
<td>Poverty &lt;$1.90 per day d</td>
<td>617.8</td>
<td>665.3</td>
</tr>
<tr>
<td>Primary education gross completion rate (%)</td>
<td>95.4</td>
<td>95.2</td>
</tr>
<tr>
<td>Secondary education gross completion rate (%)</td>
<td>66.4</td>
<td>64.8</td>
</tr>
</tbody>
</table>

a per 1,000 live births.  
b per 100,000 live births.  
c number of neonatal deaths per 1,000 live births.  
d number of people, million.
The COVID scenarios show that COVID-19 will push 47.5 million additional people into extreme poverty by 2030, an increase of 7.7 percent compared to the No-COVID scenario (i.e. trends observed before the COVID-19 outbreak). In the case of a persistent crisis and slow economic recovery, the negative effects of the pandemic are more pronounced, i.e. an increase of 19.4 percent in the number of people in extreme poverty. The predictions for 2050 are even more pessimistic due to the disruption of production and distribution systems: the pandemic will also lead to a 4.1 percent increase in the number of people suffering from malnourishment by 2030, an increase that is even greater (5.0 percent) among children under five.

Furthermore, our results show that the crisis is likely to undermine human capital accumulation because of its multiple effects on education and health. Indeed, by 2030, the world is likely to experience a decline in the gross completion rate of secondary education, and a decrease in access to improved sanitation and water. In addition, child and maternal mortality rates are projected to increase.

3.1 How many countries would achieve selected SDG targets with the ‘SDG Push’?

With focused and targeted investments, countries could make significant progress in poverty reduction, health and primary education by 2030 and 2050. Our analyses indicate that about 65 percent of countries will achieve the poverty reduction goal by 2030, which increases to 84 percent by 2050 with the SDG Push. Furthermore, 62 percent and 90 percent of countries will likely eradicate malnutrition by 2030 and 2050, respectively.

The results show that the greatest progress will be achieved in the areas of health and improved access to water. Indeed, 70 percent of countries will reduce neonatal mortality, 74 percent of countries will reduce under-five mortality, and 70 percent will improve access to water by 2030. By 2050, these figures will reach more than 90 percent. These improvements should not be observed separately since improved health outcomes contribute to increasing the standard of living (SDG target 8.1), achieving full and productive employment (SDG target 8.5), food security (SDG target 2.1) and achieving universal health coverage (SDG target 3.8), among others.

For instance, investments under the SDG Push scenario will allow 66 percent of countries to reduce maternal mortality below the SDG target, and will help 61 percent of countries increase access to improved sanitation by 2030 (Figure 1). The improvement in sanitation has the potential to contribute to over 40 SDG targets across 15 SDGs. It is therefore crucial that countries put more effort and invest resources into identifying acceleration pathways towards progress on the SDGs and that support a fair, sustainable recovery from COVID-19.

Despite a significant number of countries achieving substantial progress in health and clean water and sanitation, more progress is needed with regard to reaching the targets related to completion rates in secondary education and the reduction of malnutrition in children under five. Indeed, only 45 percent of countries will reach the goal of reducing child malnutrition by 2030, and will increase to 69 percent by 2050. By 2030, 31 percent of countries will meet the goal of achieving at least a 90 percent secondary school completion rate, and
55 percent in 2050 (Figure 2). Given the number of interlinkages with SDG targets associated with education outcomes, it is important to identify acceleration opportunities and involve stakeholders at the national and international levels to develop government capacity to deliver solutions.

Figure 1. Percentage of countries that will achieve the SDG targets by 2030

Figure 2. Percentage of countries that will achieve the SDG targets by 2050
3.2 How many years do we gain with SDG Push?

The added value of the integrated set of investments in the SDG Push scenario is that it enables achieving SDG targets earlier than in any other scenario, including the No COVID scenario. We estimated the number of years that each country would gain towards the eradication of extreme poverty through targeted policy interventions and choices. The estimate is calculated by tracking a country’s progress by 2030 and 2050 under the COVID Baseline scenario and comparing it to the year in which the poverty level is achieved under the SDG Push scenario.

With the SDG Push scenario, our analysis shows that countries could gain a cumulative reduction in poverty of 189 years compared to the COVID Baseline scenario and 225 years compared to the High Damage scenario by 2030. As many as 16 countries could achieve the target of eliminating extreme poverty by 2030 more than three years earlier, on average. For example, Bolivia could reach its 2030 projected extreme poverty rate under the COVID Baseline scenario already in 2027 with an SDG Push, and Philippines could reach it in 2030, seven years earlier than projected under the COVID Baseline scenario.

Going beyond 2030, 17 countries would be gaining a significant number of years in an SDG Push scenario at an average of eight years per country, compared to what they could achieve in the COVID Baseline by 2050 (Figure 3). For example, Senegal would have waited until 2050 to reduce extreme poverty to 3 percent, but with bold investments in the SDG Push scenario, it is projected to reduce extreme poverty to this same level by 2040, a gain of about 10 years. Similarly, Mauritania, a low-income country, effectively reaches the extreme poverty target by 2047 under the COVID Baseline scenario. However, with the SDG Push, it could achieve the same level 10 years earlier. More than six countries would achieve the extreme poverty target ten or more years earlier with a bold set of choices. However, it is worth noting that despite significant investments calculated under the SDG Push scenario, 31 countries will still not be able to reduce extreme poverty levels even by 2050.
Figure 3. Years gained in poverty reduction with the ‘SDG Push’ compared to the poverty rate achieved in 2050 under the COVID baseline scenario.
4. The costs of COVID-19 and the benefits of the SDG Push for highly vulnerable countries

For debt-burdened countries, the COVID-19 pandemic has severely impacted their repayment capacity due to increased crisis spending to support essential sectors such as health, education and social safety nets. Low-income countries (LICs) and Small Island Developing States (SIDS) are experiencing the brunt of this crisis, falling deeper into debt. In most of SIDS, tourism accounts for a large share of GDP and employment, and relies the most on public and publicly guaranteed lending. High exposure to climate hazards further compounds the vulnerability of the SIDS, and has required many of these countries to borrow externally to address escalating threats.

The COVID-19 crisis has further constrained the financial resources because funds previously earmarked for climate adaptation projects have been diverted to COVID-19 responses (Thomas and Theokritoff, 2021). At the onset of the pandemic, half of the 31 LICs fell into the ‘high risk of debt distress’ category (Kose et al., 2021). The debt burden of LICs increased by 12 percent to a record of US$860 billion in 2020 compared to 2019, while broader developing country debt payments doubled between 2010 and 2021, reaching the highest level in 20 years (World Bank, 2021).

Pandemic-related scarring effects could be exacerbated without access to fresh finance, if authorities are forced to withdraw fiscal support prematurely and deprioritize investment. Since the onset of COVID-19, debt distress ratings were downgraded for six countries (Guinea-Bissau, Kenya, Madagascar, Papua New Guinea, Rwanda and Zambia). The downgrades largely relate to the worsened macroeconomic outlook amid the pandemic. Zambia recently defaulted on its commercial debt, since it was hit hard by the impact of the pandemic, which exacerbated an already difficult economic situation (United Nations Inter-Agency Task Force on Financing for Development, 2021).

While unprecedented fiscal and monetary interventions have reduced borrowing costs and supported credit extension, some policy interventions may conceal solvency problems in the current economic environment of high interest rates. And given the sharp rise in debt during the pandemic, there is a risk that the majority of it was not oriented towards productive purposes.

Where debt accumulation episodes were accompanied by crises such as those currently ongoing, output and investment were significantly lower, even several years after the end of the episodes than in countries without crises (Kilic Celik et al., 2020). Weak growth will likely further increase debt burdens and erode borrowers’ ability to service debt, thus impacting countries’ ability to fulfil the 2030 Agenda for Sustainable Development.

1 Countries in debt distress or at high risk of entering into one: Afghanistan, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Djibouti, Ethiopia, Gambia, Ghana, Grenada, Guinea Bissau, Haiti, Kenya, Lao People’s Dem. Republic, Malawi, Maldives, Mauritania, Micronesia, Mozambique, Papua New Guinea, Samoa, Sao Tome and Principe, Sierra Leone, Somalia, Saint Vincent and the Grenadines, Sudan, Sudan South, Tajikistan, Tonga, Zambia and Zimbabwe.
Therefore, national policymakers need to act urgently to contain the potential risks associated with accumulated debt and resort to alternatives such as better spending and revenue policies. Given the limited capacity to borrow, low-income countries can lay the foundation for future growth by targeted spending towards education, health and climate to strengthen economic resilience.

### 4.1 The damage of COVID-19 for highly vulnerable countries

Our analysis shows that the number of people in extreme poverty in countries in or at high risk of entering debt distress would be 175 million by 2030 due to the pandemic, an increase of almost 12 million people compared to pre-pandemic projections; this includes 89 million women and girls. The projections are even more pessimistic under the High Damage scenario, where 188 million would be pushed into extreme poverty. The highest relative increase in poverty rates under the COVID Baseline scenario is estimated at 15 percentage points for Sierra Leone, pushing an additional half a million people into extreme poverty.

COVID-19 could also increase the number of people suffering from malnutrition by 2.9 million in this subset of countries by 2030 compared to the No COVID world. By 2030, the number of malnourished children would increase by 335,000, reaching a total of 12.8 million children under the COVID Baseline scenario. Moreover, the neonatal mortality rate would increase by 5 percent in both the COVID Baseline and High Damage scenarios.

### 4.2 The benefits of the SDG Push for highly vulnerable countries

With the integrated set of targeted investments in governance, social protection, the green economy and digitalization in the SDG Push scenario, countries can reduce poverty levels. With SDG Push investments, 19.9 million people in countries with high levels of debt, of which one-third is in Ethiopia, could be lifted out of extreme poverty by 2030 compared to the COVID Baseline scenario, which could reach 63.9 million people by 2050 (Figure 4).
<table>
<thead>
<tr>
<th>Scenario</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID</td>
<td>175,085,800</td>
<td>188,276,400</td>
</tr>
<tr>
<td>High Damage</td>
<td>123,587,500</td>
<td>138,975,800</td>
</tr>
<tr>
<td>No COVID</td>
<td>110,643,200</td>
<td>153,452,000</td>
</tr>
<tr>
<td>SDG Push</td>
<td>60,029,300</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. People living under US$1.90 a day in countries in, or at high risk of, debt distress or at high risk of entering one

Source: Based on results from the IFs model. The calculation was made for 34 countries.

The decrease in poverty is considerable for women and girls: up to 11 million could be lifted out of extreme poverty by 2030 and more than 32 million by 2050 compared to the COVID Baseline scenario. These numbers further increase up to 17 and 40 million, by 2030 and 2050, respectively, compared to the High Damage scenario.

Moreover, the benefits of the SDG Push scenario also extend to other SDGs. The number of malnourished people in highly indebted countries could be reduced by more than 33 million by 2030 and 37.5 million by 2050. The number of children suffering from malnutrition could be reduced by 2.6 million in 2030, compared to the COVID Baseline scenario, potentially amounting to a reduction of 4.2 million by 2050.

A comprehensive set of interventions in the SDG Push scenario could improve access to water by 3 percentage points more than in the COVID Baseline scenario, thus reaching 88 percent on average in highly indebted countries. For instance, the highest relative increase is evident in Papua New Guinea where access to water could increase by 7 percentage points and reach 62 percent of its population by 2030 and almost 99 percent by 2050.

Access to improved sanitation increases significantly as well, from 68 percent of the population under the COVID Baseline scenario in 2030 to 74 percent because of the SDG Push investments. The highest number of beneficiaries of the integrated set of investments in improved sanitation are in South Sudan, Mauritania and Papua New Guinea, where the relative increase is over 10 percentage points compared to that of the COVID Baseline scenario. For instance, in South Sudan, an additional 1.5 million people could obtain access to improved sanitation, thus reaching 44 percent of the population by 2030.
4.3 Who will benefit the most in highly vulnerable countries

While the previous section emphasized the benefits of a combined set of interventions on SDG achievement, not all highly indebted countries perform as well on all indicators. Out of 34 countries identified as already experiencing difficulties in servicing their debt, or being at high risk of entering debt distress, only three of them (Samoa, Tajikistan, Tonga) already achieved the poverty target of having less than 3 percent of the population living on less than $1.90 a day under COVID Baseline scenario. Under the SDG Push scenario, only Cabo Verde, Grenada and Lao PDR would eliminate extreme poverty by the end of 2030. This number increases to an additional 15 countries by 2050; however, more than one-third of highly indebted countries are still unable to reach the target. Countries such as Burundi, Central African Republic, Guinea-Bissau and South Sudan will still be combating high levels of extreme poverty.

The SDG Push still has a significant impact on access to improved water sources, with three more countries than in the baseline COVID scenario achieving the target. By 2050, all but three countries in this group would have access to clean drinking water. With regard to increased access to improved sanitation, only two countries are predicted to make significant progress under the SDG Push scenario, or 9 percent of all countries included in the analysis. However, by 2050, it is expected that 76 percent of highly indebted countries would have access to improved sanitation. Similar gains are achieved for child mortality rates, neonatal mortality and number of malnourished people, where two additional countries would meet the target under the SDG Push scenario by 2030.

It is worth noting that even with the SDG Push scenario, only two additional highly indebted countries would achieve the targeted completion rate in primary education by 2030 compared to the ten countries that already achieved a 97 percent completion rate in 2022. Also, estimates suggest that none of the countries in this sample would achieve the secondary completion rate of 90 percent by 2030; however, by 2050, six countries would reach this target rate of secondary education. In addition, by 2050, it is projected that 25 countries would achieve the universal primary completion rate.

4.4 Vaccine equity and SDG progress

The worldwide effort to create safe and effective COVID-19 vaccines has produced remarkable results. However, not all countries benefited equally from this achievement: according to the Global Dashboard for Vaccine Equity established by UNDP, World Health Organization (WHO) and Oxford University, as of September 2022, just 20.1 percent of people in low-income countries had been vaccinated with at least one dose, compared to 78.1 percent in high-income countries (Figure 5).
Therefore, in addition to the high debt burden, low vaccination rates in low-income countries continue to hinder their recovery. Inequalities in vaccine are part of a wider trajectory of inequalities deepening within and between countries, further exacerbated by recent energy shocks and food crises. UNDP’s recent analysis suggests that, had the vaccination rate been equal to that of high-income countries, low-income countries’ GDP would have increased by $16.27 billion, which could have been used towards other long-term development priorities.

A key assumption added to the new IF model relates to the WHO target of 70 percent of people in all countries vaccinated by mid-2022. This target was chosen because the first results of the mRNA vaccine trials suggested that vaccinating approximately 70 percent of a given country’s population might drastically curb the spread of the virus. However, many countries are impeded by fragile health systems, weak healthcare work force capacity, lack of cold chain, low demand, last mile logistics, hard-to-reach populations conflict and protracted emergencies. These are some of the constraints countries are facing to achieve high vaccination rates. Based on UNDP’s indicators of supply[1] and absorption[2] constraints related to the COVID-19 vaccine, we have identified 24 countries[3] (18 in Africa, 2 in Latin America and the Caribbean, 4 in Asia) that currently present significant restrictions in the availability and capacity to apply the vaccines.

For the SDG Push scenario, the IF model considers that, globally, people will have equal access to a vaccine that offers protection against COVID-19 already by 2023, which directly provides a one-year boost in countries’ GDPs. Our analysis shows that, under this scenario, about 6.1 worldwide would be lifted out of poverty (less than US$1.90/day/person) by 2030 and 4.6 million people by 2050, compared with the SDG Push scenario, but without vaccine equity in the subsequent years. More than 80 percent of this contingent is in Africa (Figure 6).
Figure 6. Gains with vaccine equity: number of people lifted out of extreme poverty in the SDG Push scenario with a vaccination rate of 70 percent from 2023 onwards

Source: Based on results from the IF model.

Given the above constraints to accelerate the vaccination rate, the likelihood of people in low-income deciles, especially the poorest one, to die from COVID-19 is greater (Figure 7) (Decoster et al., 2021) The reasons for this are manifold. First, poor people in low-income countries are mostly located in rural areas where they have limited access to healthcare, and even when they have access, due to disparities in obtaining timely and adequate care, their mortality rates are likely to be higher than those of people in higher-income deciles and urban areas (Eva et al., 2022; Levin et al., 2022; Lima et al., 2021). Second, there are environmental factors extrinsic to poor population such as population density and informality, which will complicate physical distancing, raise the population-level infection rate, and steepen the fatalities curve (Schellekens and Sourrouille, 2020). This also has implications on earnings, since most people in the low-income countries work in agriculture and are informally employed. Therefore they suffer disproportionally more from declining incomes due to containment policies and the inability to sell agricultural products on local markets. Recent research by World Bank found that the income losses were predominantly larger for the urban poor. Out of 34 countries, 29 reported higher losses for the bottom 40 percent compared to the top 60 percent, while findings for the rural population were mixed.
Figure 7. The relationship between poverty rates under the COVID Baseline scenario and excess deaths from COVID-19 for countries with vaccine supply and absorption constraints

If the vaccination rate had been higher or on par with the developed world, the impact of SDG Push interventions would help more than 3 million people to exit from extreme poverty. Results are even more significant when comparing the SDG Push scenario with vaccine equity with the COVID Baseline scenario: the combination of investments and higher vaccination rates would be sufficient to reduce the number of extreme poor people by 30 million in 2030 and an additional 103 million by 2050 only in these selected countries. Yet, relative to a scenario with protracted economic recovery (High Damage scenario), gains against poverty due to vaccine equity would reach 46 and 160 million in 2030 and 2050, respectively, in the 24 analysed countries (Figure 8).
Figure 8. Number of people lifted out of extreme poverty in the SDG Push Scenario compared to the COVID Baseline and High Damage scenarios in 2030 and 2050

Source: Based on results from the IF model.
As depicted in Figure 9, nine out of the ten most vulnerable countries, i.e. those that are already in debt distress or at high risk of entering one, and those that have limited availability and capacity to increase vaccination rates could experience significant drops in extreme poverty by 2030 relative to the COVID Baseline in 2022. Papua New Guinea could experience one of the most significant declines in poverty rates of about 57 percent, followed by Somalia (51 percent) and Chad (26 percent).

![Figure 9. Comparing extreme poverty reduction under the COVID Baseline scenario with the SDG Push scenario, in 2030](image)

Source: Authors’ calculation based on results obtained from IF model.

It should be noted that even with the SDG Push scenario, the decline in poverty rates in the most vulnerable countries (24 percent) is less than in the rest of the world (74). Nevertheless, vulnerable countries may still benefit from a substantial reduction in poverty rates and some countries (Somalia, Papua New Guinea and Republic of the Congo) could even eradicate it by 2050.
5. A foundation for acceleration and the Decade of Action

The SDG Push at the global level consists of a concrete set of interventions that, if implemented globally, accelerates the achievement toward achieving the SDGs. This is a hopeful scenario for the world at large.

Despite showing that some countries will reach some of the targets by 2030 and most of them by 2050, the SDG Push cannot fully deliver the world we want. The adjustments in scenario assumptions and specifications of the IF model suggest a long pathway towards achieving the SDGs for a large share of the global population. Although poverty rates and the number of malnourished people decreased substantially comparing to the previous flagship report due to updated data and model revisions (see Appendix), the modelling exercise also shows how progress towards achieving SDG targets is vulnerable to external shocks, which may undermine efforts made to date and delay the impact of interventions.

As we recover from the consequences of the COVID-19 pandemic, governments and the global development community are faced with important choices. Vulnerabilities are high and deprivations are becoming more entrenched. More tailored, targeted and participatory interventions and processes might offer a potential way forward. The Political Declaration of the High-level Political Forum (HLPF) on sustainable development convened under the auspices of the General Assembly stresses the urgent need for concerted, accelerated action by all stakeholders at all levels to achieve the 2030 Agenda for Sustainable Development.

As a first step, UNDP is taking the SDG Push process to the national level by democratizing the identification of the accelerators. The SDG Push is a process of helping national stakeholders create evidence-based national policy options and pathways to drive the furthest development impact. The SDG Push, while not currently costed, will be costed and modelled at the national level.

Building on UNDP’s SDG Push scenario, which features an ambitious yet feasible set of SDG accelerators across governance, social protection, green recovery and digitalization, the SDG Push supports governments in mainstreaming and disseminating accelerators to recover better from the COVID-19 pandemic.

The approach adopts a stakeholder-centred approach to create holistic and evidence-based roadmaps. Building from countries’ current development plans and priorities, these roadmaps will be country and context-specific, and will serve to identify bold policy choices, needed investments and pathways that can accelerate progress on the SDGs to support a fair, sustainable recovery from COVID-19 in each country.

This SDG Push process guides policymakers through investigatory and practical assessment via five key components. These components work as an integrated, modular and iterative process in which progress in each component reinforces other elements of the SDG Push.

Therefore, by promoting an integrated and participatory approach, countries can be equipped with accelerators and insights on how to best move forward to achieve the SDGs, ensuring continuity of policy objectives beyond external events/crisis.
Endnotes

[1] The supply-constrained indicator is built based on measurements of: (i) stability and quantity of countries’ supply as measured against the WHO global targets and (ii) its utilization levels.

[2] The absorption capacity levels are calculated based on two indicators: (i) the utilization rate, i.e. the percentage of doses used vs. received; and (ii) the monthly average vaccination rate as a percentage of population per day i.e. on average, over the past month, what is the vaccination rate (in percentage of the population) on a daily basis.


References


Appendix: Description of change in the scenarios and parameters in the IF model compared to second flagship report (Abidoye et al., 2021)

No COVID scenario:

- International Monetary Fund (IMF) debt ratios added (2018 and 2019)
- Turned on malnpopsw (makes the model results related to undernutrition sensitive to the distribution of calories within a country)

COVID:

- IMF debt ratios added (2018–2022)
- Turned on malnpopsw (makes the model results related to undernutrition sensitive to the distribution of calories within a country)

High Damage:

- IMF debt ratios added (2018–2022)
- Turned on malnpopsw (makes the model results related to undernutrition sensitive to the distribution of calories within a country)
- Shifted interventions to start in 2023
  - an increase of the national debt of 20% of the GDP starting in 2023 (2020 before);
  - a movement upward of GINIDOM by 5% starting in 2023 (2020 before)

SDG Push:

- IMF debt ratios added (2018–2022)
- Turned on malnpopsw (makes the model results related to undernutrition sensitive to the distribution of calories within a country)
- Shifted interventions to start in 2023
- One year boost to GDP (between 0 and .86% depending on country) in 2023 due to vaccine equity (vaccination rates of >=70% in all countries)
  - No data for Cuba or North Korea
- Improved caloric distribution (clpccvm) starting in 2023. Improving gradually to 2% between 2023 and 2030 – holding at 2% from 2030 on
- Carbon tax: gradual increase between 2023 and 2030 to $25 in low-income countries, $50 in middle income countries, and $75 in high-income countries per IMF carbon floor pricing.
Appendix: What has changed since the last flagship report?

Projections for the impact of COVID-19 on poverty levels and other Sustainable Development Goal (SDG) indicators during and after the pandemic are subject to great uncertainty and can change rapidly based on new data and knowledge. Comparing the above results with those from the previous flagship report, we find few important differences, most notably regarding the SDGs related to poverty and malnutrition (Figure 1). The key drivers of those changes are:

- changes in underlying data
- model revisions.

The largest difference can be observed in the number of malnourished people, which was significantly reduced across all scenarios. For instance, the impact of COVID on the number of people suffering malnourishment is reduced by 135.2 million by 2030 in the current iteration of the model. Compared to the previous IF model, the current High Damage scenario further reduces the total number of malnourished people by 30.5 million.

The underlying driver of these reductions can be attributed to changes in underlying data. In 2021, the Food and Agriculture Organization of the United Nations (FAO) updated its estimates of global food production and consumption, which led to a more accurate projection of the number of people facing food insecurity. Additionally, the model was revised to better account for the impact of COVID-19 on global supply chains and food prices. These changes, along with improved data on the impact of the pandemic on agriculture and nutrition, contributed to the observed reductions in malnutrition levels.
Nations (FAO) conducted a major historical revision of their food security and malnourishment data, resulting in a revised historical estimate of undernourishment by almost 300 million globally. This downward revision was mostly informed by newly updated household survey data in China, which changed the equality of the caloric distribution in the country, thus showing the difference in poverty numbers between the two iterations of the model. As a result, there are three potential reasons for which the previous and updated measures of undernourishment between old and new report are different: (i) new historical data; (ii) new COVID-19 effects; and (iii) model revisions resulting in different model behaviour. However, most of this drop in numbers can be explained by the change in historical data alone.

Another significant drop is related to people living in extreme poverty. While the current report finds that a targeted set of interventions reduces the number of people in extreme poverty by 95.4 million by 2030 compared to the COVID Baseline scenario, according to the previous iteration of the IF model, poverty reduction was 124.5 million. This difference can be attributed to moving the targeted set of interventions under the updated SDG Push scenario to start two years later (in 2023) than in the previous version of the report. Two years lost in accelerating the SDGs has reduced the gain in poverty alleviation by about 30 million people by 2030.

When comparing the findings reported in previous version of the flagship report, 55 million fewer people are living with less than $1.90 per day (665.3 million vs 720.3 million). This difference further increases to 148 million fewer people in extreme poverty in the High Damage scenario (Figure 2).

![Figure A-2. Difference in the number of people living under US$1.90 a day between 2022 and 2021 report update](image)

The significant decrease in poverty numbers can be attributed to several factors. First, GDP forecasts published by IMF were revised upwards between April 2022 and October 2020, as shown in Figure
3. The major differences can be observed for 2020 and 2021, where most countries fared better than initially expected. For example, the forecasts for 2020 were revised upwards for all income groups, except for upper middle-income countries. The latter group of countries experienced a large upward revision on average in 2021, together with high-income and low-income countries.

When observing poverty rates across different income groups and regions, the largest reduction in poverty has been driven by lower-middle-income and low-income countries. Also, sub-Saharan Africa and East Asia and Pacific saw the largest decrease in poverty rates, which may explain the overall decline in poverty numbers between the current and previous versions of the report (Figure 4).
Figure A-4. Difference in poverty rates per year between day between 2022 and 2021 report update