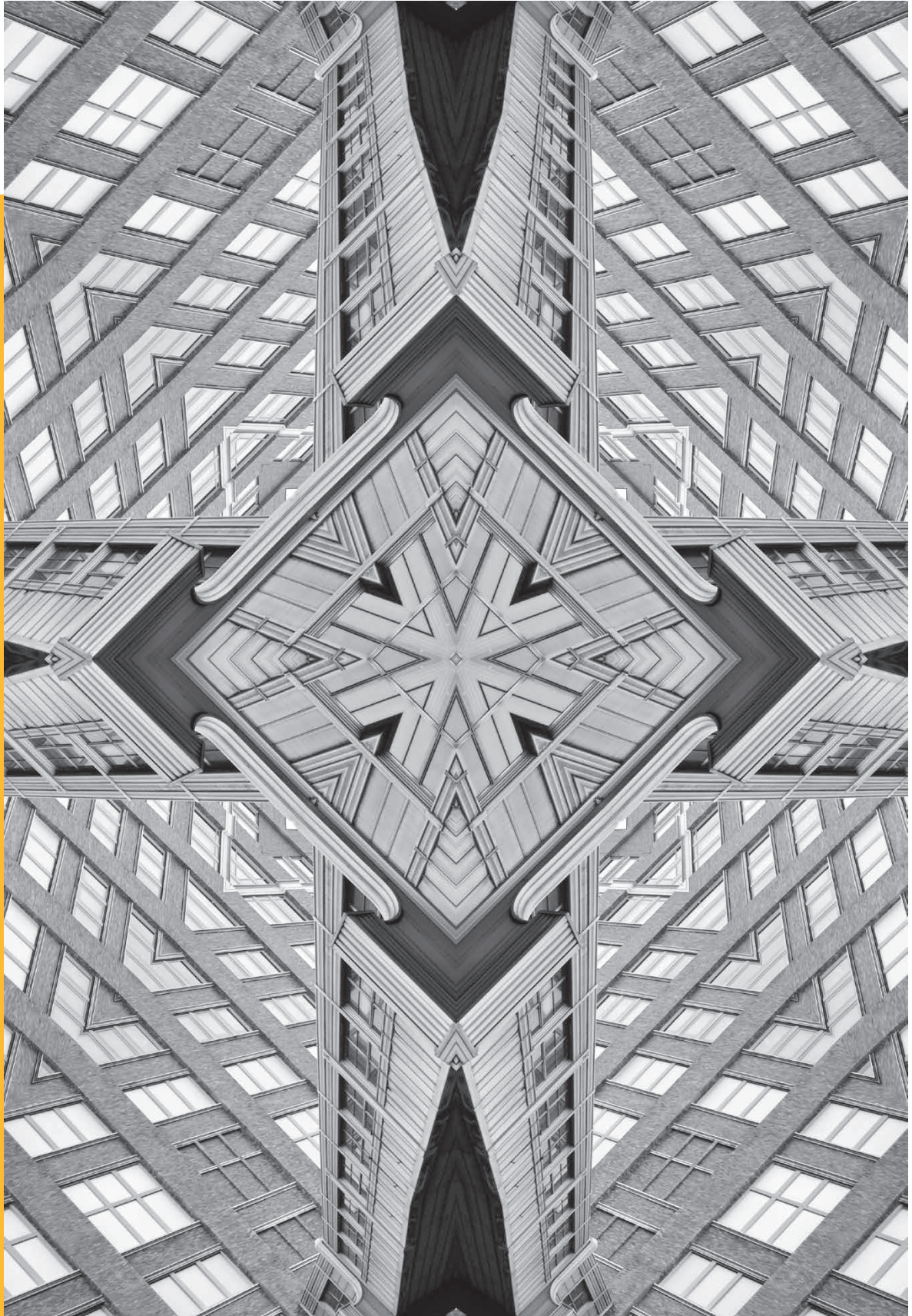


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Onward to the Sustainable Development Agenda 2030: Will COVID-19 leave many behind?

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Abstract

The multiple ramifications of the COVID-19 pandemic, and the lockdowns imposed by countries as a response, are being felt in sectors ranging from agriculture to healthcare. The global community must now hurdle massive obstacles to achieving the UN Sustainable Development Goals (SDGs). To correctly assess the impact of the pandemic on global sustainability-driven concerns, it is important to understand not only the inter-linkages between the SDGs, but their trade-offs as well. This paper analyses the impact of the pandemic on the SDGs at a global level and highlights India's experience. It outlines the economic fallout of the pandemic across various sectors while underlining the cross-linkages between those sectors and the SDGs. The paper argues that such an understanding can guide the formulation of development policy resolutions.

The Sustainable Development Goals (SDGs) are a set of 17 goals adopted by governments across the world to realise a holistic development paradigm in the near future.^{a,1} (See Figure 1) One question that is often deliberated upon by stakeholders is the utility of SDGs as measures of sustainable development in light of alternatives such as international governance frameworks, regional policies, and other instruments. Indeed, the role of the SDGs as a measure of development has been contrasted with that of its predecessor Millennium Development Goals (MDGs).^{b,2} Similar to the MDGs, though, the SDGs are targeted to be achieved in a time-bound fashion (i.e., 15 years).³

Figure 1:
Sustainable Development Goals



Source: United Nations⁴

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- a The five pillars are people (Goals 1-6); planet (Goals 12- 15); prosperity (Goals 7-11); peace (Goal 16); and partnerships (Goal 17).
 - b The MDGs are said to have lacked certain characteristics that the SDGs possess: an extensive multi-stakeholder consultation process, varied targets with nationally defined indicators, and a global focus not limited to developing countries.

To be sure, the SDGs have borrowed certain parameters from the MDGs, including those around poverty and inequality.⁵ The two, however, are not direct reflections of one another.⁶ The link between the factors including economic development, environmental sustainability and social inclusion, previously unaccounted for by other development indexes,⁷ has been duly incorporated within the SDGs. The SDGs also outline the means and methods that countries should employ in order to meet the targets.^c

The interconnected nature of the goals and the relationships they share with each other allow stakeholders to take more than one perspective towards the concept of sustainable development.⁸ For instance, even though economic development ensures social justice to an extent, the same can also be fostered through a justice-driven and inclusive approach for all—targeted towards increasing access and participatory decision-making, with particular emphasis on the marginalised populations.

The ongoing COVID-19 pandemic, unprecedented in contemporary history, has had tremendous impacts on the global economy. The absence of a vaccine during the first year of the onslaught of the new virus had forced countries to impose lockdowns and other measures to arrest the spread.⁹ The year 2021 began with hopes of the world being able to gradually control the virus: as of the end of January, over

100 million doses of various COVID-19 vaccines have already been administered in various parts of the globe. Israel, for instance, has vaccinated over 50 percent of its population.^{d,10} Under the COVAX initiative, a number of candidate vaccines are being tested for priority access to low and lower-middle income countries—the initiative is being supported and monitored by Gavi the vaccine alliance, and the Coalition for Epidemic Preparedness Innovations (CEPI).¹¹

“The interconnected nature of the SDGs allows stakeholders to take a more nuanced perspective of the concept of sustainable development.”

c For instance, SDG 16 and 17 are centered on building communities with a stronger sense of peace, security, rule of law, social inclusion and participation, and in that sense, go beyond the MDGs by identifying and accordingly tailoring targets for the sources of contemporary global problems.

d Experts in the United States project a minimum vaccination rate of 70 to 85 percent of the country's population to enable people to return to normalcy.

Even as mass inoculation is being planned, governments are taking varied other measures to mitigate the impact of the pandemic in their jurisdictions. In India, Finance Minister Nirmala Sitharaman has announced the provision of medical insurance cover of INR 5 million per healthcare worker—the programme will cater to some 2 million health services and ancillary workers across the country.¹² The government has also put restrictions on the export of masks, PPE kits, diagnostic kits and related inputs, as well as hydroxychloroquine or its formulations, and withdrew customs duty or cess charges on import of ventilators, masks, PPE kits or inputs used in the production of these items.¹³

Monetary and relief measures such as these are an immediate imperative as the pandemic created strains in the social, economic and political systems, and destroyed lives and livelihoods across the world. This paper assesses the impact of the pandemic on the global goals on sustainable development. Since the SDGs provide a barometer for the progress of a nation (or lack of it)—they can also be used to measure the extent of the crisis created by the pandemic and guide the economic reconstruction processes that countries will attempt beginning in this second year of the pandemic.

This paper aims to highlight the interconnectedness of the global sustainable development targets and how the pandemic has affected multiple aspects of that agenda—while simultaneously evaluating the impacts of the pandemic on individual SDGs. The second section of the paper outlines the intrinsic financial and operational trade-offs that exist between individual SDGs and provides examples of such trade-offs (in which the advancement of one of the SDG targets could have a negative impact on fulfilling another SDG target). The same section then analyses the associations between the various SDGs and examines the far-reaching effects of the pandemic on targets ranging from reduced inequality to promotion of women's rights. Section 3 offers evidence on how each of the SDGs is being affected by the pandemic, both on the global scale and on a national level in India. The last section underlines the ways in which various economic sectors with SDG linkages are being affected by disruptions caused by the pandemic.

The SDG Framework: Trade-offs and interconnectedness

The SDG framework is beset by certain inherent challenges that make it difficult not only to operationalise the targets into direct policy action, but also to comprehend the outcomes. The framework, besides being of a normative and one-size-fits-all approach, also has issues with compatibility between different targets as well as their monitoring and quantification.¹⁴ Moreover, there are clear contradictions or trade-offs that policymakers are faced with when working towards these goals.¹⁵ For example, there are trade-offs between industrialisation (SDG 8) and pursuing SDG 6 (clean water and sanitation), 11 (sustainable cities and communities) and 13 (climate action). SDG 8 could offset advances in SDG 13 as any level of industrialisation will introduce newer effluents into the local environment. In other words, the CO₂ emissions load is in the opposite direction than economic and social pillar indicators such as child mortality and education.¹⁶ The trade-offs can be more glaring for the developing regions of the world which suffer massive constraints in SDG financing.

Bridging these inherent contradictions becomes increasingly important given emerging threats. For example, the IPCC's *Special Report on the Ocean and Cryosphere in a Changing Climate* (2019) presents an alarming scenario with the sea level expected to rise by 1.4 feet even under a low emissions scenario, by the year 2100.^{e,17} The report advocates for international and regional cooperation towards cryosphere preservation in the face of existing financial, technological as well as institutional barriers. Without adequate support from the developed nations (especially in the form of aid) and greater participation of the private sector, financing such plans does not seem viable.

“Trade-offs between targets are more glaring for the poorer regions of the world which suffer massive constraints in SDG financing.”

e This corresponds to SDG 14 – Life below Water.

The SDG Framework: Trade-offs and interconnectedness

The 2020 *Financing for Sustainable Development Report* by the United Nations suggests policy responses like creating a stimulus package that will increase aid to developing countries. Governments could also inject liquidity in the markets and partner with private financial institutions to provide credit to Small and Medium Enterprises (SMEs), and invest in resilient infrastructure, social protection systems, and future risk management.¹⁸

Highlighting the linkages

Despite the seeming inherent contradictions between the SDGs, however, there are linkages as well. In the present scenario, SDG 3 (Good Health and Well-being) acts as the linchpin that comes before all the other development objectives across the world. Health programmes directed towards preserving the human capital of individual nations as well as the global economy may serve as a common denominator that can ease the process of achieving sustainable growth and development. In India for example, SDG 3 is being operationalised at both macro and micro levels: as the country actively participates in the global drive for the COVID-19 vaccination, the women-run Self Help Groups (SHGs) are producing masks, sanitisers and other protective gear at the local and rural scales, to cater to the demand for these products by the domestic Indian population.¹⁹

The Health SDG (3) carries ripple impacts on other SDGs: weak economic growth and the absence of appropriate employment opportunities for all (SDG 8), lack of innovation and infrastructural capacity building (SDG 9), pervasive inequalities (SDG 10), the clean water and sanitation targets (SDG 6), food security issues (SDG 2), and entrenched poverty (SDG 1).²⁰ Therefore, the response to the pandemic should include an integrated approach by addressing these inter-linkages intrinsic to the SDG framework.²¹

While any health crisis is unwelcome, COVID-19 could not have come at a most critical time—as the international community was nearly entering the last ten years to 2030, the target year for the fulfillment of the SDGs. A renewed approach is therefore called for, as the pandemic affects not only SDG 3 but, due to the interconnected nature of the goals, other ones as well. For example, UNESCO estimates that COVID-19 would affect the schooling of more than 1.25 billion students—this threatens SDG 4 (quality education and learning for all).²² Large numbers of students are facing hardships in coping with the alternative—online education—for various reasons primary of which are lack of access to compatible technology and reliable internet connection, as well as lack of digital competence.²³

In turn, these new challenges to achieving SDG 4 could be linked to other SDGs: Goal 9 (Industry, Innovation and Infrastructure); Goal 10 (Reduced Inequality); and Goal 16 (Peace and Justice Strong Institutions). (See Figure 2)

The SDG Framework: Trade-offs and interconnectedness

Figure 2:
Inter-linkages among the SDGs



Source: Stockholm Resilience Center²⁴

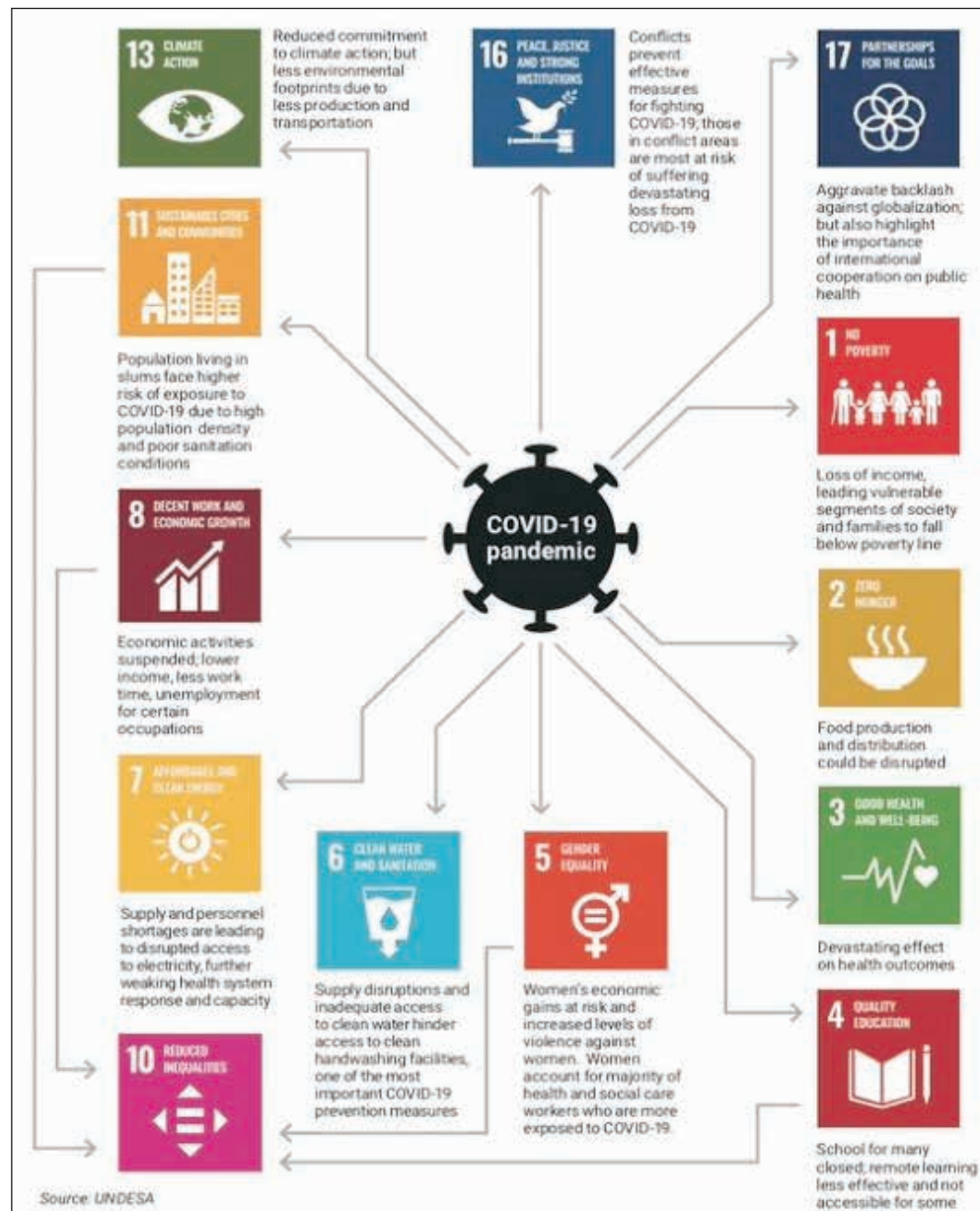
Similar linkages are seen in the gender equality goal, SDG 5. As the pandemic wreaks havoc on the livelihoods of around 25 million people across the globe, the women are disproportionately affected by the cascading impacts.²⁵ While these figures cover only the formal sectors, those in informal sectors would bear the brunt of lack of social and financial protection. In several regions like South Asia, Sub-Saharan Africa and Latin America and the Caribbean, large populations especially of women are heavily reliant on the informal sectors for employment.²⁶

The loss of employment, financial challenges and mental anxiety due to the pandemic has exacerbated the domestic violence crisis as well. In different parts of the world, reports are emerging about a rise in the number of domestic abuse cases. Early studies are finding that in these cases, women, children and Lesbian Gay Bisexual Transgender Intersex and Queer (LGBTIQ+) individuals are at higher risk.²⁷ This not only puts pressure on SDG 16 (peace and justice) but also on SDG 5 (gender equality). The collective impact would lead to marginal groups being even more vulnerable—this will violate the very cornerstone of SDGs, i.e., “leaving no one behind.”²⁸ Figure 3 depicts some of the estimated impacts of COVID-19 on the various SDGs.

While a report by the UN Economic and Social Commission for Asia and the Pacific (UNESCAP) suggests that the Asia Pacific region will not meet its SDG targets at the current rate of progress—economic growth (SDG 8) and environmental protection (SDG13) are some of the main areas of utmost concern.²⁹

The SDG Framework: Trade-offs and interconnectedness

**Figure 3:
COVID-19 and the SDGs**



Source: UNDESA³⁰

These overlapping threats to the SDGs necessitate a rethinking of the targets as well as the timeline within which such goals will need to be achieved. Moreover, the over-arching nature of the crisis has also highlighted the need for a paradigm shift in the working approach towards achieving these goals.

The New Coronavirus 'infects' the SDGs

At any given time, progress on the SDGs is contingent upon a variety of factors; the COVID-19 pandemic has only underlined this reality that the primary determinant of whether or not the international community succeeds in the SDGs is the extent of commitment that countries can make in committing resources to the objectives while allocating resources as per the demands of current realities. Other aspects entail understanding the governments' responses while dealing with COVID-19 as a part of implementing the 2030 Agenda and using the crisis as an opportunity for future development planning.

To be sure, despite the apparently bleak outlook, the country-specific attention to achieving SDGs and the political interest among governments at an international level remains robust.³¹ Private sector and volunteer actions for the SDGs are also visible—in areas like provision of masks and sanitisers, aiding accountability and helping design stimulus packages, knowledge dissemination, and facilitating greater diversity in voices across nations, races and gender.³²

The following paragraphs will assess the impact of the COVID-19 crisis from a holistic sustainable development-oriented perspective. Table 1 summarises the immediate and significant effects of the pandemic, and of the successive lockdowns, on each SDG. The outline is made through both global as well as national (India) lenses.

“Whether or not the international community achieves the SDGs will be largely determined by commitment to resources.”

The New Coronavirus 'infects' the SDGs

**Table 1:
Impacts of COVID-19 on individual
SDGs**

SDGs	World Estimates	India Estimates
SDG 1: No Poverty	<p>Poverty may increase to a level untouched since the 1990s. Depending on the extent of increase, it would undo almost a decade's work of reducing poverty across the world.³³</p> <p>Due to income reduction of individuals by an average of 20 percent, the number of people living in severe poverty will rise by 434 million to nearly 1.2 billion worldwide as compared to the 2018 figures. The number of people living below the US\$5.50 per-day mark will likely increase to about 4 billion from 548 million people as compared to the 2018 recorded figures.³⁴</p>	<p>Approximately 400 million people employed in the informal economy in India face the risk of slipping deeper into poverty.³⁵</p>
SDG 2: Zero Hunger	<p>The novel coronavirus pandemic is projected to raise the number of people suffering acute hunger to 265 million in 2020 as compared to 135 million in 2019, according to the UN World Food Programme.³⁶ An additional 130 million people around the world could be pushed to the brink of starvation by the end of 2020.</p>	<p>In India, hunger and poverty remain important concerns and even more so at the time of the pandemic. The shutdown of schools means many children miss out on their only hot meal provided as a mid-day meal in public schools - the Mid-day Meal programme served nearly 0.91 million children as per 2018-19 records.³⁸</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
	<p>According to Food and Agriculture Organization (FAO) Director-General Dongyu Qu, the global food supply remains secure, but concerns about the supply chain due to quarantine/lockdown regulations continue to linger. Additionally, partial port closures that trigger shipping industry slowdowns and logistical hurdles remain a problem.³⁷</p>	
<p>SDG 3: Good Health and Well Being</p>	<p>Healthcare priorities have changed, and the focus is on combating the new coronavirus. As of February 2021, the statistics show around 105 million cases of Coronavirus globally with approximately 2.3 million deaths.³⁹</p>	<p>In India, around 10.8 million people have been infected with COVID-19, with around 155 thousand deaths as of February 2021.⁴⁰</p>
<p>SDG 4: Quality Education</p>	<p>184 countries across the world have imposed lockdowns and had shut down schools nationwide, affecting more than 1.5 billion students⁴¹ (close to 91 percent of the student population across the globe).</p>	<p>In India, more than 320 million students have been affected by the various restrictions and the nationwide lockdown.⁴³ According to a report by Quacquarelli Symonds (QS), the Indian Internet network is not ready for the paradigm change to online learning demanded by the situation emerging from COVID-19. The study highlighted accessibility and communication issues as the most prevalent problems faced by students when attending online classes.⁴⁴</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
	<p>The closing of schools, colleges and universities not only affects the overall training to students around the world; it often coincides with crucial assessment periods - several exams have been delayed or cancelled.⁴²</p>	<p>The glaring 'digital divide' between rural and urban areas further aggravates the problem. As per the National Sample Survey (NSS) 2018, 85 percent of households in rural India do not have access to the internet and only 42 percent of the urban households can afford internet services.⁴⁵ The poorest households do not even have access to a computer or a smartphone.</p>
<p>SDG 5: Gender Equality</p>	<p>Disease outbreaks impact women and men disproportionately, and epidemics worsen health hazards and social disadvantages for women and children. Additionally, 70 percent of the world's healthcare and social workers are women, which make them the frontline staff in the ongoing war against COVID-19.⁴⁶</p>	<p>In India, estimates show that qualified female healthcare workers account for almost half of country's health force and among the more vulnerable groups. Women account for a staggering 88.9 percent of trained nurses and midwives in the country.⁵⁰</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
	<p>Drawing lessons from the Zika virus crisis, disparities in authority between genders meant that women lost control in their sexual and reproductive activities, aggravated by their insufficient resources to access hospitals and healthcare facilities. There is also an insufficient amount of female participation in pandemic planning and response, as can already be seen in some of the national and global responses to COVID-19. There has also been a rise in the cases of domestic violence and marital rape.⁴⁷ The pandemic is also bound to aggravate violence against other vulnerable societal sections such as the LGBTI⁴⁸ people, the elderly and those in deep poverty.⁴⁹</p>	<p>In many communities in India, issues surrounding access to water have directly impacted women who spend hours queuing up around community water sources. This violates social distancing norms and also becomes a health hazard in the light of heatwaves being observed around the country. Domestic responsibilities borne by women have also increased multifold, with lower access to nutritional food. Issues surrounding unequal access to technology and misinformation have also come to the fore.⁵¹ The Indian LGBTIQ+ community has been facing issues like discrimination, loss of employment, isolation and lack of cultural competence in healthcare which leads to delayed to avoidance of healthcare.⁵²</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
<p>SDG 6: Clean Water and Sanitation</p>	<p>As the COVID-19 pandemic spread across the globe, it became abundantly apparent that the most drastic consequences will be experienced by those with the least exposure to vital resources such as sanitation. Public health agencies suggest washing hands regularly at frequent intervals – for at least 20 seconds at a time – to avoid the risk of catching the virus. As per a 2020 UNICEF and WHO report, around 40 percent of the world's population lack access in their homes to simple hand-washing and sanitation facilities.⁵³</p>	<p>In India, COVID-19 pandemic has yet again highlighted the requirement of ensuring access to safe water as well as sanitation for all communities alike. As per the World Health Organization (WHO), access to clean water for performing basic hygiene functions and washing hands has been termed as a 'challenge'. As per the Centre for Science and Environment (CSE), the added emphasis on hand washing has increased the uptake of water used in urban areas significantly. This means extreme water shortages for millions and a subsequent reduction in the GDP by about 5-7 percent by 2050.⁵⁴ The growing demand for water comes at a time when there is little room for rising availability, water levels are dropping, and water quality problems are increasingly coming to the fore.</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
		<p>The current water paradigm is focused on supply side management instead of holistic policy paradigms - additional water availability contributes to further production of wastewater and in effect raises treatment costs.⁵⁵ Clean water, sanitation, and hygiene programs are important for disease prevention and the safety of public health during outbreaks of infectious diseases. In these times of crisis, consideration of long-term measures and cost-effective strategies together with the short-term measures is becoming increasingly important in India.⁵⁶</p>

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SDGs	World Estimates	India Estimates
SDG 7: Affordable and Clean Energy	<p>The epidemic has led to a dampened market demand for gasoline and energy, leading costs to plunge and supply to decline. Global oil demand is estimated to decline by a record 9.3 mb/d year-on-year in 2020.⁵⁷ COVID-19 pandemic has also stepped up the continuing fluctuations of gas and energy prices indicating the fragility of the energy markets.</p>	<p>The Indian Renewable Energy Industry is a capital-intensive one where availability of liquidity is important. But the current outbreak has negatively impacted the supply chains which has affected the liquidity of the renewable energy companies.⁵⁸ However, in India, the pandemic has tipped the scales in favour of renewables for cleaner and renewable power while the share of coal will decline in the medium to long term.⁵⁹ The peak capacity of coal in India could be in 2027 after which there would not be any need for new coal plants.⁶⁰</p>
SDG 8: Decent Work and Economic Growth	<p>Global trade is projected to decrease by anything between 13 – 32 percent by the end of 2020 as the COVID-19 pandemic disrupts normal economic growth.⁶¹ The global economy may compress by up to 1 percent in 2020.⁶² If economic activity limits are expanded without appropriate fiscal responses, the effects would be heightened.</p>	<p>According to the International Labour Organization, at least 90 percent of India's workforce (about 400 million) are employed in the informal sector and they are expected to fall deeper into poverty.⁶³ As per the Ministry of Statistics, the country's growth dipped to 3.1 percent in the last quarter of the fiscal year 2020.⁶⁴ India's GDP is likely to contract by 10.3percent in the fiscal year 2021 in light of the current global health emergency.⁶⁵</p>

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SDGs	World Estimates	India Estimates
SDG 9: Industry, Innovation and Infrastructure	<p>COVID-19 would significantly impact trends and patterns in the use of public transport, air travel and global infrastructure development, amongst others. Infrastructure has been impacted due to supply chain disruptions, slow revenue generation and labour disruptions.⁶⁶</p>	<p>COVID-19 has impacted the economy and infrastructure of India. Private companies such as Larsen & Toubro, Grasim Industries, Aditya Birla Group, BHEL and Tata Motors, as well as startups,⁶⁷ have all acknowledged the hard-hitting impact of the pandemic and as a response had suspended their operations in many parts of the country. In addition to announcing economic packages, the government had also temporarily suspended many insolvency and bankruptcy laws to aid the financially distressed sectors.⁶⁸</p>
SDG 10: Reduced Inequality	<p>The pandemic has heightened divisions in income as well as those based on age, sex, disability, race, ethnicity, origin, religion and economic status. Marginalised communities find it difficult to access quality healthcare and are often stigmatised. Institutionalized discrimination in hospitals is also responsible in increasing inequality between different groups.</p>	<p>The maps of the containment regions in India are likely to reveal increasing clusters of diseases associated with slums and other areas populated by disadvantaged and minority populations. Social and psychological discrimination against such groups can result in a far tougher process of exclusion.</p>

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SDGs	World Estimates	India Estimates
	<p>The impact of COVID-19 on income inequality is expected to be worse than other pandemics due to the large number of people impacted worldwide, higher death tolls, lack of vaccine, and stringent lockdowns.⁶⁹</p>	<p>It is estimated that the gap between income shares going to the top two deciles and the bottom two deciles could increase to 43.6 percentage points in five years after COVID-19.⁷⁰</p>
<p>SDG 11: Sustainable Cities and Communities</p>	<p>Communities with high population density such as slums are continually at higher risk of health and infectious diseases. A pandemic such as COVID-19 must force the government to rethink urban and town planning in a sustainable fashion.⁷¹</p>	<p>Slums in India are vulnerable to COVID-19 and other disease outbreaks – India’s slums occupy 24 percent of its population as of 2014 (most recent value).⁷² This is due to overcrowded housing and shared basic facilities, which make social distancing a difficult prospect.⁷³</p>
<p>SDG 12: Responsible Consumption and Production</p>	<p>Stocks of disposable gloves and masks are under pressure, and the waste produced by their unnecessary use may adversely affect the environment and raise carbon emissions.</p>	<p>With only 198 Common Bio-Medical Waste Treatment Facilities (CBMWTFs) and 225 captive incinerators there are serious questions raised over India’s capacity to handle biomedical waste in the wake of the COVID-19 pandemic.⁷⁴</p>

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SDGs	World Estimates	India Estimates
SDG 13: Climate Action	The air quality has improved significantly due to reduced levels of air pollution as a result of reduced vehicle and airline traffic. The shift in behaviour observed as a result of lockdowns imposed as a way to battle COVID-19 and "hyper-localisation" would pave the way for further degrowth necessary to achieve climate change goals – which could again be inconsistent with the economic ambitions of nations.	Indian air quality recorded significant improvement due to the effects of the lockdown. ⁷⁵ Even a day before the Janta Curfew i.e., 21 st March, saw 54 cities record good and satisfactory air quality while 91 cities recorded minimal pollution. ⁷⁶ The improvements were however only temporary and limited to the effects of lockdown.
SDG 14: Life Below Water	Despite decrease in marine pollution due to lower production leading to lower externalities, COVID-19 has also led to increased generation of waste in the form of masks and other personal protective equipment which end up being washed into the oceans. ⁷⁷	The increased generation of pandemic waste coupled with the absence of a comprehensive marine pollution policy and the limited number of biomedical waste treatment centres and incinerators ⁷⁸ would lead to increased marine pollution around the seas adjoining the Indian coastlines. ⁷⁹

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SDGs	World Estimates	India Estimates
SDG 15: Life on Land	<p>The world's forests are under increased threat due to COVID-19 - as more trees are likely to be felled for food and fuel as poverty intensifies. More than 9 out of 10 people living in extreme poverty rely on forests; the pressure would be exacerbated by the pandemic.⁸⁰ In contrast, there is also lesser destruction in forests momentarily, for land-use change towards linear infrastructure and urbanisation.</p>	<p>In India, although the quality of the water in rivers, including Ganga and Yamuna, has improved notably, these are momentary phases due to the imposed lockdowns and would not bear long term consequences.⁸¹ The sightings of the endangered Gangetic dolphins have increased in the upper Gangetic basin in Uttar Pradesh and in West Bengal after a gap of nearly 30 years due to the reduced river pollution.⁸²</p>
SDG 16: Peace and Justice Strong Institutions	<p>COVID-19 has forced institutions to consider concepts such as sustainability and access for all. This must be ensured as strong institutions are enablers for achieving other goals. Courts across various jurisdictions have adopted various methods such as allowing only essential litigation, electronic filing and remote functioning.⁸³ However, there is also a growing concern regarding the rights of citizens and prison detainees due to court closures and delays, necessitated by the outbreak.⁸⁴</p>	<p>The Supreme Court of India has decided to continue with virtual courts which have allowed it to hear urgent matters via video conferencing.⁸⁵ The lockdown however has led to a spurt in cybercrime cases with COVID-19-related high-risk domain groups have increased from zero to 1.2 million in the period between January and April.⁸⁶</p>

The New Coronavirus 'infects' the SDGs

SDGs	World Estimates	India Estimates
SDG 17: Partnerships for Growth	While COVID-19 has led to the development of divisions in the international community on the matter of holding China 'accountable' for the crisis, ⁸⁷ various institutions have emphasised the need for collective action, consensus, global cooperation and partnership in order to tackle the pandemic.	India initiated the South Asian Association of Regional Cooperation (SAARC) joint relief fund worth nearly US\$ 21 million to assist SAARC countries during the pandemic. In addition, India has also hosted an online conference with senior health officials of SAARC countries to share training tools for emergency workers. ⁸⁸

Source: Author's own, using various open sources

This section draws upon the aggregate picture and considers the different sectors of the macro economy and how they have been impacted by the pandemic. This will be particularly significant in highlighting the interconnectedness as well as the trade-offs among different SDGs and targets in pursuit through the forward and backward linkages among different economic sectors. This paper's analysis of the sector-SDG linkage will adhere to the framework developed by the Industry Classification Benchmark (ICB), including 11 broad industries—basic materials, consumer discretionary, consumer staples, energy, financials, healthcare, industrials, real estate, technology, telecommunications, and utilities.⁸⁹

While outcomes related to some sectors directly impact the progress towards one or more SDGs, some sectors influence the possibilities of achieving sustainable development through a more intricate process. For example, performance of the healthcare sector, energy sector, technology sector, and industrials and consumer staples sectors are directly related to SDG 3, 7, 4 and 12, respectively. The consumer staples industry, on the other hand, whilst directly contributing to the achievement of SDG 2, also improves health outcomes (influencing progress towards SDG 3) and consumption sustainability (SDG 12). The utilities, real estate and telecommunications industry contribute significantly to capacity building through infrastructure and logistics development, and thereby enabling progress along SDG 9 and 11 (directly) and SDG 8 (indirectly). Moreover, it is important to acknowledge the critical role played by the financial and technology sector in the achievement of almost all of the SDGs. The financial sector can re-route investible resources to key focus areas so as to increase the efficacy of the entire system as well as enable progress towards reduced economic and social inequalities through financial inclusion. Similarly, technology can be useful in addressing challenges faced by all other sectors and thereby, the achievement of several SDGs related to health outcomes, access to education, innovation and responsible production and, most importantly, climate action (SDG 13) which then directly impacts SDG 6, 14 and 15.

Table 2 presents the impact of the novel coronavirus pandemic on different industries across the economy, and the SDGs that are influenced by these impacts on a global scale.

**Table 2:
Sectoral Impact of COVID-19 cross-linked to the SDGs**

Industry Group	Cross-SDG Linkages ⁹⁰	Impact of COVID-19 ⁹¹
Basic Materials	6 (Clean water), 12 (Responsible consumption and production), 14 (Life on water), 15 (Life on land)	More than 60 percent of the chemical manufacturers across the globe have been affected by the outbreak, experiencing operational losses as well as lay-offs. ⁹² The metals and mining segments have been hit hard due to a considerable decline in global trade. Even the incredible demand for protective materials for masks, disinfectant chemicals and packaging materials across markets has not been enough to prevent the decline in growth. ⁹³ The global chemical sector GDP is expected to decline by 11 percent in 2020. ⁹⁴
Consumer Discretionary	12 (Responsible consumption and production)	Owing to social distancing and stay-at-home mandates issued by various governments, rising unemployment and declining income levels as well as the travel restrictions put in place since the virus outbreak, the consumer discretionary sector suffered heavy losses. It is estimated that the sector will reasonably recover to the pre-pandemic levels only as late as 2023. There has been a 15-20 percent decline in global luxury industry value for the year 2020; however, a quick revival is expected in the recovery period. The restaurant and hospitality businesses have experienced nearly 50 percent value deterioration in the second quarter of 2020, with a large percentage of closures indicated as permanent. ⁹⁵

Sectoral Impact

Industry Group	Cross-SDG Linkages ⁹⁰	Impact of COVID-19 ⁹¹
Consumer Staples	2 (Food security), ³ (Good health), ¹² (Responsible consumption and production)	The agribusiness industries were to some extent insulated from the effects of the pandemic in terms of production as they were deemed essential industries. However, labour and other supply-chain disruptions as well as declining export markets were a cause of concern. Price instability in agricultural markets also had its impacts on the income accruing to this sector. ⁹⁶ The beverages industry has suffered the brunt of lockdown measures put in place from March through May in several countries around the world. On the other hand, distribution channels for the tobacco industry remained open and demand afloat, protecting the resilience of this industry. ⁹⁷
Energy	7 (Climate action)	The virus outbreak and subsequent measures put in place to combat its spread have led to a significant decline in the global demand for oil and gas, resulting in over production and plummeting oil prices in the global market. Governments and energy regulators have also pursued tolerance of non-payment by end-users which have put increased financing pressures on the distributors. COVID-19 has also had adverse impacts on the renewable energy sector, primarily due to supply-chain disruptions and consequent delay in implementation of essential projects. Moreover, low oil prices incentivise inefficiency on the part of end-users and also affect the focus of institutions towards clean energy projects. ⁹⁸

Sectoral Impact

Industry Group	Cross-SDG Linkages ⁹⁰	Impact of COVID-19 ⁹¹
Financials	All goals	Financial markets in the EMDEs witnessed a steep plunge in net capital flows right at the onset of the pandemic. Amidst wavering investor confidence, financial markets across the globe were significantly volatile. But, more recently, financial markets have stabilized considerably. ⁹⁹ Central banks across the globe have injected liquidity into financial markets in the form of cheap credit as a part of their stimulus packages, which can plausibly worsen their asset portfolio in the future. A large magnitude of NPAs accompanied by high government debt can lead to a serious financial crisis, which countries need to be careful about. ¹⁰⁰
Healthcare	3 (Good health)	According to a survey published by WHO with 105 respondent countries, most countries had reported a 50-percent disruption, on an average, in routine and elective healthcare services as well as critical care. This has severe short-medium-long-term effects on the populations of these countries. While several countries have adopted strategies recommended by WHO to mitigate these effects, only about 14 percent of them have effectively removed or reduced user fees to increase access in the midst of financial difficulties facing large sections of the population. ¹⁰¹

Sectoral Impact

Industry Group	Cross-SDG Linkages ⁹⁰	Impact of COVID-19 ⁹¹
Industrials	9 (Industry, innovation and infrastructure), 12 (Responsible consumption and production)	Several industrial towns and cities were particularly hard-hit by the pandemic, with production losses accentuated by supply chain disruptions and financial market volatilities. Small and medium-sized enterprises were also severely affected. However, even for countries like South Korea which did not halt or disrupt production chains, industries suffered a great deal due to declining demand, both in the domestic and global markets. ¹⁰²
Real Estate	9 (Industry, innovation and infrastructure), 11 (Sustainable cities and communities)	The global real estate market, particularly commercial real estate segment, has been one of the most impacted due to the ongoing pandemic. Investment levels have declined 29 percent year-on-year during the first half of 2020. ¹⁰³
Technology	All goals	The pandemic has brought anew the focus on the technology sector. With digital transformation becoming more necessary than ever before and with a shift to the cloud, global IT spending was particularly high in the first quarter of 2020. ¹⁰⁴

Sectoral Impact

Industry Group	Cross-SDG Linkages ⁹⁰	Impact of COVID-19 ⁹¹
Tele-communications	4 (Education), 9 (Industry, innovation and infrastructure)	The telecommunications industry has been mostly exempted from several operational restrictions which have been otherwise placed on many other industries. As a result, it has fared better compared to other infrastructure-related industries. Moreover, in the present scenario, with a shift to the digital mode of work/education, there has been a sufficient increase in data traffic and use of broadband services from the households. The industry, however, has not been isolated from the short- to medium-term disruptions arising out of faltering investor confidence, reduced demand from high-value enterprise customers such as schools, offices, etc., as well as uncertainty regarding business development plans. ¹⁰⁵
Utilities	6 (Clean water and sanitation), 7(Climate action), 9 (Industry, innovation and infrastructure)	The global utilities market is expected to decline to US\$4516.9 billion in 2020 recording a Compound Annual Growth Rate (CAGR) of -1 percent. ¹⁰⁶ The decline is mainly due to economic slowdown across countries owing to containment measures and consequent fall in demand from the commercial and industrial sectors. However, as countries around the world begin to re-open, utilities will remain critical as an essential infrastructure service.

Source: Author's own, using various open sources

Nearly all crucial industry groups recorded significant declines in output during the first quarter of FY 2020-21, with the construction industry, transport and hospitality services bearing a larger share of the brunt of COVID-19 and the subsequent lockdown measures introduced. The agriculture, forestry and fishery industries showed resilience and performed significantly well, exhibiting a growth of 3.4 percent over FY 2019-20 Q1. There were large-scale lay-offs across sectors with unemployment rates reaching a record high of 23.5 percent in April 2020.¹⁰⁷ This will undoubtedly worsen the poverty rates for an already low-income economy, like India.¹⁰⁸ Table 3 shows the quarterly estimates of India's Gross Value Added (GVA) across different industries.

Table 3:
Gross Value Added (GVA) at Basic Prices (at 2011-12 prices)

Serial No.	Industry	Percentage change in Q1 (2020-21) over Q1 (2019-20)
1.	Agriculture, Forestry and Fishing	3.4
2.	Mining and Quarrying	-23.3
3.	Manufacturing	-39.3
4.	Electricity, Gas, Water Supply and other Utility Services	-7.0
5.	Construction	-50.3
6.	Trade, Hotels, Transport, Communication and Services related to Broadcasting	-47.0
7.	Financial, Real Estate and Professional Services	-5.3
8.	Public Administration, Defense and Other Services	-10.3

Source: National Statistical Office Press Note, Government of India¹⁰⁹

Conclusion


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Efforts at mitigating the severe economic and social fallout of the pandemic can be synergised with achieving the SDG targets if countries give due consideration to sustainability.¹¹⁰ To meet the targets of the SDGs, a renewed focus and ample financing avenues from both public and private channels is needed. With the changes in societal order as a result of the pandemic, the inherent trade-offs that affect sustainable development may be adding to the crisis. Directed policy action is needed to bring about the desired reforms, keeping in mind the limitations imposed by these trade-offs.

Additionally, the complex network of inter-linkages among the SDGs will not allow the whole framework to function if one of them falls apart.¹¹¹ The urgent emphasis on SDG 3 (health) must be interpreted to mean improving countries' disease avoidance and regional and global risk-control mechanisms, and eventually ameliorating the dampened international economic order.

The pandemic has caused the international political processes to change in order to advance the sustainable development agenda as we see the digital space becoming the new norm. On an intergovernmental level, the UN High Level Political Forum (HLPF) on sustainable development is also looking into changing its format of meetings, ministerial addresses and other associated events.¹¹² The HLPF, which was supposed to be an annual stocktaking process on the SDGs, needs to change radically into a new format to further the global monitoring processes in the near future. A proposed reform that can be beneficial is learning from the best practices derived from the 2019 Global Sustainable Development Report (GSDR). The HLPF can use the concept of 'levers and entry points' for the SDG review processes.¹¹³

Aligning policies along with SDGs may be a more difficult challenge for the global south in the backdrop of lack of resources and collapse of societies. However, the essence at the core of the SDGs must be embraced along with tending to issues arising out of the grim social and economic aftermath of the pandemic so as to drive policy changes.

Embracing development goals helps the world prepare better for global crises as they have the potential to ensure access to universal health coverage and better primary services, as well as more inclusive and prosperous economies.¹¹⁴ Showcasing the interdependent dimensions of sustainable development in terms that would appeal to individuals and communities alike will help enable acknowledgement of the situation and deliberation over the necessary solutions. Building resilience across the various economic sectors and implementing solutions that mitigate the various trade-offs existing within the framework is of utmost importance. 

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