


Editorial

The Impact of COVID-19 Pandemic on Sustainable Development Goals

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In December 2019, a new kind of coronavirus, termed novel coronavirus (2019-nCoV or COVID-19), was noticed in Wuhan, China, and has now rapidly spread throughout China and the world [1]. On 30 January 2020, the World Health Organization's (WHO) Director-General designated the novel coronavirus outbreak a public health emergency of international concern (PHEIC), and on 11 March 2020, the WHO officially recognized the COVID-19 outbreak as a pandemic [2]. Throughout the COVID-19 pandemic's severe urgency stage, which spanned three years, there was an extended state of emergency, with high rates of death and burden on health care systems [3]. The COVID-19 pandemic caused substantial death rate rises in 2020 on a scale not experienced since World War II in Western Europe or since the dissolution of the Soviet Union in Eastern Europe [4]. On 28 September 2020, the reported mortality toll from COVID-19 reached one million deaths globally, and on 26 January 2021, the number of registered COVID-19 cases exceeded 100 million [5]. Furthermore, as of 17 December 2023, over 772 million confirmed cases and almost 7 million deaths have been reported globally [6]. The pandemic exposed a lack of emergency preparedness in the healthcare sector, particularly in OECD nations that had been expected to be more resilient [7]. The dramatic rise in mortality connected with COVID-19 was reflected in lower life expectancy around the world [8]. In this regard, the GBD 2021 Demographics Collaborators [9] reported that global life expectancy at birth fell by 1.6 years from 2019 to 2021, whereas Cao et al. [10] estimated a decrease of 1.8 years.

The 2030 Agenda for Sustainable Development [11], adopted by all United Nations Member States in 2015, lays out a common vision for stability and growth for individuals and the environment, with 17 Sustainable Development Goals (SDGs) and 169 objectives at its core. Unfortunately, when the SDG Decade of Action commenced in 2020, COVID-19 had already emerged as a global outbreak and impeded accomplishments toward the SDGs [12]. The global pandemic has since delayed advancement toward SDGs, worsened geographical disparities, limited connections, and boosted aversion to globalization because of curfews and geopolitical issues [13]. The global outbreak had an immediate effect on medical services, human health, and wellness, and pandemic containment had an indirect impact on wealth, schooling, food availability, and the ecosystem, particularly through social regulations, business and school closures, and travel bans abroad [14]. The COVID-19 pandemic hindered achievement of the SDGs by 8.2%, with socio-economic sustainability dropping by 18.1% and environmental sustainability improving by 5.1%, in contrast to normal operational patterns [15]. Thore [16] observed that the global outbreak had an even greater effect on nations that had already overlooked and neglected human well-being deficits in fields such as senior care, personal security, and sanitation. Moreover, the pandemic deepened existing disparities, triggering higher demonstrations of racism, xenophobia, extremism, polarizing populism, protectionism, misinformation, and disinformation, along with the unethical use of digital technologies [17]. Naidoo and Fisher [18] estimated it will be improbable to achieve two-thirds of the SDGs. On a global scale, Elsamadony et al. [19] noticed that the most harmed goals during the pandemic were



Citation: Gherghina, Ș.C.; Simionescu, L.N. The Impact of COVID-19 Pandemic on Sustainable Development Goals. *Sustainability* **2024**, *16*, 5406. <https://doi.org/10.3390/su16135406>

Received: 8 June 2024
Accepted: 20 June 2024
Published: 25 June 2024



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inequality (Goal 5) and economy (Goal 8). In a similar vein, Shuai et al. [20] emphasized that SDGs pertaining to economic growth have been affected the most severely, including SDG 8 (Decent Work and Economic Growth) and SDG 2 (Zero Hunger), whereas SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 14 (Life Below Water), and SDG 15 (Life on Land) were enhanced due to limited human interactions during the period of the pandemic. Specifically, the pandemic-related economic collapse increased the number of people living in severe poverty to around 119 and 124 million in 2020. The crisis heightened gaps, leading to a drop of 255 million full-time employment in 2020 and 101 million children and young people falling under the minimal reading competency level [21]. The global outbreak exacerbated existing inequities within and between countries, inflicting havoc on the poorest individuals and nations and undermining advances reached in lowering income disparities preceding the financial crisis [22]. Hence, the fundamental objective of “leave no one behind” has been undermined by expanding disparities [23]. As of April 2020, the COVID-19 pandemic has had major effects on about 1.6 billion workers in the informal economy, triggering a 60% drop in their incomes [24].

Because of COVID-19's elevated propagation velocity and the risk that asymptomatic or presymptomatic people could be diseased, several nations implemented lockdown measures to reverse exponential disease transmission patterns [25]. The COVID-19 pandemic has transformed working from home into a common practice for countless employees, pushing many workers and businesses to shift to online work for the first time and with no prior planning [26]. Additionally, COVID-19 lockdowns have led to global school suspensions, mandating virtual learning (home schooling) as a result [27]. However, stay-at-home regulations to fulfill social isolation demands have been shown to have a detrimental effect on overall mental and physical wellness, as well as an upsurge in the prevalence of physical and mental health disorders [28]. The surge in domestic violence throughout the worldwide outbreak additionally highlights the significance of gender equality and women's empowerment (SDG 5 and SDG 10) [29]. On the other hand, a sharp decrease in carbon emissions has occurred, since nearly all industries, means of transport, and other enterprises were forced to cease their operations [30]. It was estimated that by early April 2020, daily global carbon dioxide emissions would have decreased by –17% from average 2019 levels [31].

Moreover, the COVID-19 pandemic led to the most dramatic worldwide economic collapse in almost a century. In 2020, 90 percent of nations witnessed economic downturns, the worldwide economy contracted by 3 percent, and global poverty soared for the first time in a generation [32]. The pandemic was projected to force 97 million more individuals to live on less than \$1.90 per day in 2021, while 163 million more would live on less than \$5.50 per day [33]. Moreover, global external debt as a percentage of gross domestic product reached 114% in 2020, one of the highest levels seen since 1990 [34].

Given this background, this book comprises 11 papers published in this Special Issue, entitled “The Impact of the COVID-19 Pandemic on Sustainable Development Goals”, and the aim of these was to generally focus on the broad implications of COVID-19 for SDG achievement. One article (Contribution 1) centered on how the COVID-19 pandemic has hampered and will still interfere with long-term progress toward the SDGs, as well as how collaborative development might compensate for interrupted progress while hastening recovery. The aim of another manuscript (Contribution 2) was to explore how COVID-19 hindered the initiatives and attempts of Flemish public entities to implement SDGs. Another paper (Contribution 3) concerned the case of Polish regions in particular in order to examine the influence of the COVID-19 pandemic on financial conditions and mortality. In addition, an article (Contribution 4) investigated how incorporating digital technologies improved economic performance during the COVID-19 pandemic. With reference to the workforce, the labor markets of European Union countries and the shifts that occurred before and during the spread of the pandemic were analyzed in another study (Contribution 5). In the same line of research, a different study (Contribution 6) evaluated the effect of the COVID-19 pandemic on the unemployed in Szczecin, Poland. The purpose of a subsequent paper

(Contribution 7) was to examine the impact of teleworking on employee well-being. Further investigations aimed to explore the effects of coronavirus on education. Because the COVID-19 period of virtual schooling provided significant insights for universities to consider in order to continue online instruction and support many more learners with university education, another paper (Contribution 8) investigated accounting students' perceptions of distance instruction in the Philippines. For the School of Engineering of the University of León, another study (Contribution 9) assessed student satisfaction in face-to-face and "forced" virtual environments during COVID-19. Other research (Contribution 10) focused on healthcare professionals in Turkey and investigated in what way the pharmaceutical industry's commitment to operating salesforce automation tools with customer relationship management and e-detailing components could offer a varied detailing and ongoing medical learning program during the pandemic. By focusing on the teaching staff of the Basque Country, Spain, another study (Contribution 11) investigated the feelings teachers experienced when conducting Emergency Remote Teaching while restricted to their residences.

In a nutshell, COVID-19 has postponed advances toward the SDGs until 2030, signaling to humanity that no individual is safe unless entire societies are secure. Thus, all states must establish long-term global partnerships in order to simultaneously achieve said SDGs [35]. Those involved in foreign relations must emphasize multilateral cooperation alongside transparent dialogue [36]. In this aim, the articles in this Special Issue can broaden our knowledge of the many implications of the COVID-19 pandemic on the Sustainable Development Goals while providing promising prospective research paths.

Author Contributions: Conceptualization, Ş.C.G. and L.N.S.; methodology, Ş.C.G. and L.N.S.; software, Ş.C.G. and L.N.S.; validation, Ş.C.G. and L.N.S.; formal analysis, Ş.C.G. and L.N.S.; investigation, Ş.C.G. and L.N.S.; resources, Ş.C.G. and L.N.S.; data curation, Ş.C.G. and L.N.S.; writing—original draft preparation, Ş.C.G. and L.N.S.; writing—review and editing, Ş.C.G. and L.N.S.; visualization, Ş.C.G. and L.N.S.; supervision, Ş.C.G. and L.N.S.; project administration, Ş.C.G. and L.N.S.; funding acquisition, Ş.C.G. and L.N.S. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest: The authors declare no conflicts of interest.

List of Contributions:

1. Hanna, T.; Hughes, B.B.; Irfan, M.T.; Bohl, D.K.; Solórzano, J.; Abidoye, B.; Patterson, L.; Moyer, J.D. Sustainable Development Goal Attainment in the Wake of COVID-19: Simulating an Ambitious Policy Push. *Sustainability* **2024**, *16*, 3309. <https://doi.org/10.3390/su16083309>.
2. Mestdagh, B.; Sempiga, O.; Van Liedekerke, L. The Impact of External Shocks on the Sustainable Development Goals (SDGs): Linking the COVID-19 Pandemic to SDG Implementation at the Local Government Level. *Sustainability* **2023**, *15*, 6234. <https://doi.org/10.3390/su15076234>.
3. Brzozowska, K.; Gorzałczyńska-Koczkodaj, M.; Ociepa-Kicińska, E.; Pluskota, P. The Impact of the COVID-19 Pandemic on Financial Condition and Mortality in Polish Regions. *Sustainability* **2023**, *15*, 8993. <https://doi.org/10.3390/su15118993>.
4. Spulbar, C.; Anghel, L.C.; Birau, R.; Ermiş, S.I.; Treapăt, L.-M.; Mitroi, A.T. Digitalization as a Factor in Reducing Poverty and Its Implications in the Context of the COVID-19 Pandemic. *Sustainability* **2022**, *14*, 10667. <https://doi.org/10.3390/su141710667>.
5. Bieszk-Stolorz, B.; Dmytrów, K. Assessment of the Similarity of the Situation in the EU Labour Markets and Their Changes in the Face of the COVID-19 Pandemic. *Sustainability* **2022**, *14*, 3646. <https://doi.org/10.3390/su14063646>.
6. Bieszk-Stolorz, B.; Markowicz, I. The Impact of the COVID-19 Pandemic on the Situation of the Unemployed in Poland. A Study Using Survival Analysis Methods. *Sustainability* **2022**, *14*, 12677. <https://doi.org/10.3390/su141912677>.
7. Crawford, J. Working from Home, Telework, and Psychological Wellbeing? A Systematic Review. *Sustainability* **2022**, *14*, 11874. <https://doi.org/10.3390/su141911874>.
8. Abeysekera, I.; Sunga, E.; Gonzales, A.; David, R. The Effect of Cognitive Load on Learning Memory of Online Learning Accounting Students in the Philippines. *Sustainability* **2024**, *16*, 1686. <https://doi.org/10.3390/su16041686>.

9. Martínez-García, R.; Fraile-Fernández, F.J.; Búrdalo-Salcedo, G.; Castañón-García, A.M.; Fernández-Raga, M.; Palencia, C. Satisfaction Level of Engineering Students in Face-to-Face and Online Modalities under COVID-19—Case: School of Engineering of the University of León, Spain. *Sustainability* **2022**, *14*, 6269. <https://doi.org/10.3390/su14106269>.
10. Yılmaz Altuntaş, E.; Yalçın, E.C. COVID-19 Pandemic Learning: The Uprising of Remote Detailing in Pharmaceutical Sector Using Sales Force Automation and Its Sustainable Impact on Continuing Medical Education. *Sustainability* **2023**, *15*, 8955. <https://doi.org/10.3390/su15118955>.
11. Garitano, E.T.; Portillo Berasaluce, J.; de la Serna, A.L.; Arce Alonso, A. Emotions of Educators Conducting Emergency Remote Teaching during COVID-19 Confinement. *Sustainability* **2024**, *16*, 1456. <https://doi.org/10.3390/su16041456>.

References

1. Zhu, H.; Wei, L.; Niu, P. The novel coronavirus outbreak in Wuhan, China. *Glob. Health Res. Policy* **2020**, *5*, 6. [[CrossRef](#)] [[PubMed](#)]
2. World Health Organization. *A Timeline of WHO's COVID-19 Response in the WHO European Region*; World Health Organization: Geneva, Switzerland, 2022.
3. Heads of Medicines Agencies, European Medicines Agency. *COVID-19 Lessons Learned. Joint Report on the Response to the Public Health Emergency*; European Medicines Agency: Amsterdam, The Netherlands, 2023.
4. Aburto, J.M.; Schöley, J.; Kashnitsky, I.; Zhang, L.; Rahal, C.; Missov, T.I.; Mills, M.C.; Dowd, J.B.; Kashyap, R. Quantifying impacts of the COVID-19 pandemic through life-expectancy losses: A population-level study of 29 countries. *Int. J. Epidemiol.* **2022**, *51*, 63–74. [[CrossRef](#)] [[PubMed](#)]
5. David, J. Sencer CDC Museum: In Association with the Smithsonian Institution. In *CDC Museum COVID-19 Timeline*; Centers for Disease Control and Prevention: Atlanta, GA, USA, 2023.
6. World Health Organization. *COVID-19 Epidemiological Update*; World Health Organization: Geneva, Switzerland, 2023.
7. Sachs, J.; Schmidt-Traub, G.; Kroll, C.; Lafortune, G.; Fuller, G.; Woelm, F. *The Sustainable Development Goals and COVID-19*; Cambridge University Press: Cambridge, UK, 2020.
8. Schöley, J.; Aburto, J.M.; Kashnitsky, I.; Kniffka, M.S.; Zhang, L.; Jaadla, H.; Dowd, J.B.; Kashyap, R. Life expectancy changes since COVID-19. *Nat. Hum. Behav.* **2022**, *6*, 1649–1659. [[CrossRef](#)]
9. GBD 2021 Demographics Collaborators. Global age-sex-specific mortality, life expectancy, and population estimates in 204 countries and territories and 811 subnational locations, 1950–2021, and the impact of the COVID-19 pandemic: A comprehensive demographic analysis for the Global Burden of Disease Study 2021. *Lancet* **2024**, *403*, 1989–2056. [[CrossRef](#)]
10. Cao, G.; Liu, J.; Liu, M.; Liang, W. Effects of the COVID-19 pandemic on life expectancy at birth at the global, regional, and national levels: A joinpoint time-series analysis. *J. Glob. Health* **2023**, *13*, 06042. [[CrossRef](#)] [[PubMed](#)]
11. United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development*; A/RES/70/1; United Nations: New York, NY, USA, 2015.
12. Yuan, H.; Wang, X.; Gao, L.; Wang, T.; Liu, B.; Fang, D.; Gao, Y. Progress towards the Sustainable Development Goals has been slowed by indirect effects of the COVID-19 pandemic. *Commun. Earth Environ.* **2023**, *4*, 184. [[CrossRef](#)]
13. Zhao, W.; Yin, C.; Hua, T.; Meadows, M.E.; Li, Y.; Liu, Y.; Cherubini, F.; Pereira, P.; Fu, B. Achieving the Sustainable Development Goals in the post-pandemic era. *Humanit. Soc. Sci. Commun.* **2022**, *9*, 258. [[CrossRef](#)] [[PubMed](#)]
14. Lekagul, A.; Chattong, A.; Rueangsom, P.; Waleewong, O.; Tangcharoensathien, V. Multi-dimensional impacts of Coronavirus disease 2019 pandemic on Sustainable Development Goal achievement. *Glob. Health* **2022**, *18*, 65. [[CrossRef](#)] [[PubMed](#)]
15. Li, C.; Deng, Z.; Wang, Z.; Hu, Y.; Wang, L.; Yu, S.; Li, W.; Shi, Z.; Bryan, B.A. Responses to the COVID-19 pandemic have impeded progress towards the Sustainable Development Goals. *Commun. Earth Environ.* **2023**, *4*, 252. [[CrossRef](#)]
16. Thore, S. Sustainable development goal deficits and the Covid 19 pandemic. *Technol. Forecast. Soc.* **2022**, *125*, 121204. [[CrossRef](#)]
17. United Nations. *The SDGs in Time of Crisis: A Sustainable, Inclusive and Resilient Recovery from COVID-19 as an Opportunity to Realize the SDGs*; United Nations: New York, NY, USA, 2021.
18. Naidoo, R.; Fisher, B. Reset Sustainable Development Goals for a pandemic world. *Nature* **2020**, *583*, 198–201. [[CrossRef](#)] [[PubMed](#)]
19. Elsamadony, M.; Fujii, M.; Ryo, M.; Nerini, F.F.; Kakinuma, K.; Kanae, S. Preliminary quantitative assessment of the multidimensional impact of the COVID-19 pandemic on Sustainable Development Goals. *J. Clean. Prod.* **2022**, *372*, 133812. [[CrossRef](#)] [[PubMed](#)]
20. Shuai, C.; Zhao, B.; Chen, X.; Liu, J.; Zheng, C.; Qu, S.; Zou, J.-P.; Xu, M. Quantifying the impacts of COVID-19 on Sustainable Development Goals using machine learning models. *Fundam. Res.* **2022**, *in press*. [[CrossRef](#)]
21. United Nations. *Progress towards the Sustainable Development Goals*; United Nations: New York, NY, USA, 2021.
22. United Nations. *The Sustainable Development Goals Report*; United Nations: New York, NY, USA, 2021.
23. Shulla, K.; Voigt, B.-F.; Cibian, S.; Scandone, G.; Martinez, E.; Nelkovski, F.; Salehi, P. Effects of COVID-19 on the Sustainable Development Goals (SDGs). *Discov. Sustain.* **2021**, *2*, 15. [[CrossRef](#)] [[PubMed](#)]
24. International Labour Organization. *Impact of Lockdown Measures on the Informal Economy*; International Labour Organization: Geneva, Switzerland, 2020.

25. Haider, N.; Osman, A.Y.; Gadzekpo, A.; Akipede, G.O.; Asogun, D.; Ansumana, R.; Lessells, R.J.; Khan, P.; Hamid, M.A.; Yeboah-Manu, D.; et al. Lockdown measures in response to COVID-19 in nine sub-Saharan African countries. *BMJ Glob. Health* **2020**, *5*, e003319. [[CrossRef](#)] [[PubMed](#)]
26. Galanti, T.; Guidetti, G.; Mazzei, E.; Zappala, S.; Toscano, F. Work From Home During the COVID-19 Outbreak. The Impact on Employees' Remote Work Productivity, Engagement, and Stress. *J. Occup. Environ. Med.* **2021**, *63*, e426–e432. [[CrossRef](#)] [[PubMed](#)]
27. Morse, A.R.; Banfield, M.; Batterham, P.J.; Gulliver, A.; McCallum, S.; Cherbuin, N.; Farrer, L.M.; Calear, A.L. What could we do differently next time? Australian parents' experiences of the short-term and long-term impacts of home schooling during the COVID-19 pandemic. *BMC Public Health Vol.* **2022**, *22*, 80. [[CrossRef](#)] [[PubMed](#)]
28. Xiao, Y.; Becerik-Gerber, B.; Lucas, G.; Roll, S.C. Impacts of Working From Home During COVID-19 Pandemic on Physical and Mental Well-Being of Office Workstation Users. *J. Occup. Environ. Med.* **2021**, *63*, 181–190. [[CrossRef](#)]
29. Nundy, S.; Ghosh, A.; Mesloub, A.; Albaqawy, G.A.; Alnaim, M.M. Impact of COVID-19 pandemic on socio-economic, energy-environment and transport sector globally and sustainable development goal (SDG). *J. Clean. Prod.* **2021**, *312*, 127705. [[CrossRef](#)]
30. Bhat, S.A.; Bashir, O.; Bilal, M.; Ishaq, A.; Dar, M.U.D.; Kumar, R.; Bhat, R.A.; Sher, F. Impact of COVID-related lockdowns on environmental and climate change scenarios. *Environ. Res.* **2021**, *195*, 110839. [[CrossRef](#)]
31. Quéré, C.L.; Jackson, R.B.; Jones, M.W.; Smith, A.J.P.; Abernethy, S.; Andrew, R.M.; De-Gol, A.J.; Willis, D.R.; Shan, Y.; Canadell, J.G.; et al. Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Nat. Clim. Chang.* **2020**, *10*, 647–653. [[CrossRef](#)]
32. International Bank for Reconstruction and Development/The World Bank. *World Development Report 2022: Finance for an Equitable Recovery*; The World Bank: Washington, DC, USA, 2022.
33. Sánchez-Páramo, C.; Hill, R.; Mahler, D.G.; Narayan, A.; Yonzan, N. *COVID-19 Leaves a Legacy of Rising Poverty and Widening Inequality*; 2021. Available online: <https://blogs.worldbank.org/en/developmenttalk/covid-19-leaves-legacy-rising-poverty-and-widening-inequality> (accessed on 1 June 2024).
34. Miningou, É.W. *Does COVID-19-Related Debt Affect Government Expenditure on Education?* The World Bank: Washington, DC, USA, 2023.
35. Qadeer, A.; Anis, M.; Ajmal, Z.; Kirsten, K.L.; Usman, M.; Khosa, R.R.; Liu, M.; Jiang, X.; Zhao, X. Sustainable development goals under threat? Multidimensional impact of COVID-19 on our planet and society outweigh short term global pollution reduction. *Sustain. Cities Soc.* **2022**, *83*, 103962. [[CrossRef](#)] [[PubMed](#)]
36. Srinivas, J.; Kolloju, N.; Singh, A.; Naveen, S.; Naresh, S. The COVID-19 Pandemic and Its Impact on Sustainable Development Goals-2030. *J. Knowl. Econ.* **2024**. [[CrossRef](#)]

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