

Julia Smith is a research associate in the Faculty of Health Sciences at Simon Fraser University, Burnaby, Canada. **Sara E. Davies** is a professor of international relations at the School of Government and International Relations, Griffith University, Brisbane, Australia. **Huiyun Feng** is a senior lecturer at the School of Government and International Relations, Griffith University, Brisbane, Australia. **Karen A. Grépin** is an associate professor at the School of Public Health, University of Hong Kong, Hong Kong. **Sophie Harman** is a professor of international politics in the School of Politics and International Relations, Queen Mary University of London, UK. **Asha Herten-Crabb** is a PhD student in the Department of International Relations at the London School of Economics and Political Science, UK. **Rosemary Morgan** is an assistant scientist in the Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA. e-mail: c.wenham@lse.ac.uk

- Human Rights Watch. *Neglected and Unprotected: The Impact of the Zika Outbreak on Women and Girls in Northeastern Brazil* (Human Rights Watch, 2017).
- Bandiera, O. et al. *The Economic Lives of Young Women in the Time of Ebola: Lessons from an Empowerment Programme (Working Paper F-39301-SLE-2)* (International Growth Centre, 2018).
- Peterman, A. et al. *Pandemics and Violence Against Women and Children: Working Paper 528* (Center for Global Development, 2020).
- Bayefsky, M. J., Bartz, D. & Watson, K. L. N. *Engl. J. Med.* **382**, e47 (2020).
- Kabia, A. B. 'Women in Sierra Leone's Labour Market.' *China Daily* (9 February 2016); available at <https://go.nature.com/3fswaiz>
- Davies, S. E., Harman, S., Manjoo, R., Tanyag, M. & Wenham, C. *Lancet* **393**, 601–603 (2019).
- Roesch, E., Amin, A., Gupta, J. & Garcia-Moreno, C. *Br. Med. J.* **369**, m1712 (2020).
- UK Office for National Statistics. *Domestic Abuse Victim Characteristics, England and Wales: Year Ending March 2019* (ONS, 2019).
- World Health Organization. *Understanding and Addressing Violence against Women: Femicide* (WHO, 2020)
- Klugman, J. *Gender Based Violence and the Law* (World Bank, 2017).
- Fraser, E. *Impact of COVID-19 Pandemic on Violence against Women and Girls*. VAWG Helpdesk Research Report No. 284 (UK Department for International Development, 2020).
- United Nations Population Fund. *Recovering from the Ebola Virus Disease: Rapid Assessment of Pregnant Adolescent Girls in Sierra Leone* (UNFPA, 2018).
- Sedgh, G. et al. *Lancet* **388**, 258–267 (2016).
- Wenham, C. et al. *Glob. Health* **15**, 49 (2019).
- Marteletto, L. J., Guedes, G., Coutinho, R. Z. & Weitzman, A. *Demography* <https://doi.org/10.1007/s13524-020-00871-x> (2020).
- Gentilini, U. *Social Protection and Jobs Responses to COVID-19: A Real-Time Review of Country Measures* (World Bank, 2020).
- Bonnet, F., Vanek, J. & Chen, M. A. *Women and Men in the Informal Economy: A Statistical Brief* (WIEGO/ILO, 2019).
- Man, J. 'In Hong Kong, a setback for domestic-worker rights.' *Time* (29 March 2012).
- Abuya, T. et al. 'COVID-19-related knowledge, attitudes, and practices in urban slums in Nairobi, Kenya.' Version 13.0 Harvard Dataverse <https://doi.org/10.7910/DVN/VO7SUO> (2020).

Sustainable Development Goals: pandemic reset

Robin Naidoo & Brendan Fisher

COVID-19 is exposing the fragility of the goals adopted by the United Nations — two-thirds are now unlikely to be met.

As COVID-19 batters the world and its economy, it's time to rethink sustainable pathways for our planet. Rosy hopes that globalization and economic growth would bankroll waves of green investment and development are no longer realistic. It's unlikely there will be enough money or attention to banish poverty and inequality, expand health care and overturn biodiversity loss and climate change, all by 2030.

The SARS-CoV-2 virus has already killed more than 512,000 people, disrupted the livelihoods of billions and cost trillions of dollars. A global depression looms. The United States and other nations are gripped by protests against structural inequality and racism. And geopolitical tensions between superpowers and nuclear states are at levels not seen for decades.

Things were different back in 2015, when the United Nations adopted 17 Sustainable Development Goals (SDGs) to improve people's lives and the natural world by 2030. It was arguably one of humanity's finest moments — the whole planet signed up. Many national budgets were flush with funds. Governments agreed ambitious treaties, including the Paris climate agreement, the Sendai framework on disaster risk reduction and the Addis Ababa plan for financing development.

Five years on, as the UN celebrates its 75th anniversary, that mood of optimism has gone. In other words, the very foundations on which the SDGs were built have shifted.

The success of the SDGs depends on two big assumptions: sustained economic growth and globalization. COVID-19 has torn these to shreds. The global economy is expected to contract by at least 5% this year, and the timeframe for its recovery is years, not months, if the past is any guide. Industrialized countries struggling to support their own citizens will not bankroll the development of others.

Overseas development aid could drop by US\$25 billion in 2021. The United States has announced its withdrawal from the World Health Organization. Increasing the scale of human activity on the planet looks foolish when it could open wells of new diseases once hidden in the wild, similar to COVID-19.

Governments have basic worries. Food security is under threat, because farm workers are unable to travel to harvest crops; prices of rice, maize (corn) and wheat are rising. The UN World Food Programme has just doubled its estimate of the number of people who are likely to face acute food shortages this year, to 265 million. Demand for cash crops, such as Kenya's flower exports, has stalled. Ecotourism has collapsed. Even oil-rich developing countries such as Nigeria, Africa's most populous nation, cannot sell their resources profitably in the global slowdown.

And the world will face further stressors in the next decade. More pandemics, yes, but also extinctions and the continued degradation of the ecosystems on which all life depends. Storms, wildfires, droughts and floods will become more frequent owing to climate change. Geopolitical unrest might follow. Mounting costs to address these will divert yet more funding from existing SDG targets. Last year alone, the United States experienced 14 separate billion-dollar disasters related to climate change.

COVID-19 is demonstrating that the SDGs as currently conceived are not resilient to such global stressors. As the UN's High-level Political Forum on Sustainable Development meets (virtually) this week, delegates must chart a new course for the SDGs. As the world recovers from this pandemic, the forum must establish a few clear priorities, not a forest of targets. It should also consider which goals can be achieved in a less-connected world with a sluggish global economy.

Slow or worse

Progress across the SDGs was slow even before COVID-19. Now, it's even more likely that many of the 169 targets will not be met by 2030. Worse, some could even be counterproductive (see 'COVID-19 impacts on Sustainable Development Goals'). Two-thirds of the 169 targets are either under threat as a result of this pandemic or not well-placed to mitigate its impacts (see Supplementary information).



Migrant labourers in Uttar Pradesh protest against the lack of food in a slum area after the government eased lockdown measures.

Some might even amplify problems. Ten per cent of the SDG targets could worsen the impacts of future pandemics.

The goal of good health is the most obvious casualty. Clinics everywhere are stretched by COVID-19, and resources are in short supply. The impacts are spreading to all areas of health care. For example, the UN children's charity UNICEF warns that up to 116 million newborns and mothers will experience inadequate services in the coming months.

With travel off the table, tourism is suffering. The Organisation for Economic Co-operation and Development (OECD) estimates that the number of international tourists will drop by 60% this year, reducing tourism's contribution to global gross domestic product (GDP) and affecting countries where it is a substantial part of the national economy. These include Namibia, where tourism centred around charismatic species such as lions, leopards and elephants contributes 10% of the country's GDP. Flowing more than \$11 million annually into local communities has also helped to dramatically increase wildlife populations, including those of elephants that are declining elsewhere in Africa. But without tourism, poaching has reappeared – in April, two endangered black

rhinoceroses (*Diceros bicornis*) were killed on community lands for the first time in almost three years.

Goals and targets that rely on a growing global economy will not be met. For example, making energy affordable and clean will require the creation of new markets and financing. Boosting industry, innovation and infrastructure will require extra investment. Even before COVID-19, financing for the SDGs was \$2.5 trillion short.

“Cash-strapped governments need to focus on a few broad strategic goals.”

Concerns over targets that conflict with one another have been raised before¹; now, they are pressing. For example, improving the transport network in developing countries is a key focus of the goal for industry, innovation and infrastructure. Yet, extending roads into wilderness puts more people in the path of new pathogens. Construction is damaging forests and other fragile environments across

the tropics², counter to the goal to protect life on land. A proposed highway through Africa's Serengeti region would cause irreparable harm to a protected area that generates more than \$80 million per year from tourism³. Similarly, marine traffic pollutes the air and ocean, and puts the goal to protect 'life under water' under threat. Air travel moves people, money and ideas, but helped to spread SARS-CoV-2 rapidly around the world⁴.

What to do?

Prioritize win-wins. Cash-strapped governments need to focus on a few broad strategic goals⁵. This will inevitably upset groups that support goals and targets that are de-emphasized. But sometimes that cannot be avoided.

Priorities will be hard to identify among so many diverse targets. Some have clear and quantitative aims – for example, to eradicate extreme poverty for all people everywhere by 2030, such that no one is living on less than \$1.25 a day. Others are more diffuse – such as promoting public procurement practices that are sustainable, in accordance with national policies and priorities.

Fortunately, some of the goals underpin or interact positively with many others^{1,6}.



RUNGROJ YONGRIT/EP/SHUTTERSTOCK

Illegal trade in endangered species, such as pangolins, increases the risk that people are exposed to viruses from the wild.

And some become more urgent in light of COVID-19. For example, 30 (18%) of the targets would help to lessen the likelihood of another global pandemic. Reducing wildlife trafficking and the supply and demand of illegal wildlife products, for instance, would reduce the probability that new viruses would transfer to humans⁷. Three further targets – achieving universal health coverage, bolstering the health workforce and strengthening the capacity of early-warning systems for global health risks – will slow the cascading impacts of COVID-19 in low-income nations.

Experts in decision science, cost-benefit analysis and socio-ecological systems should complement political representatives in determining which SDG targets should be prioritized. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) shows how information from various scientific disciplines can support difficult decisions on climate-change mitigation and adaptation options⁸.

Decouple development and growth. COVID-19 is a stress test of our globalized economy and of our global goals for a more sustainable planet. Just as when global banking faced, and failed, a similar test in 2008, it must be a learning experience. The financing, oversight and implementation of the SDGs have to be reformed.

Sustained per-capita economic growth

for all countries is itself an SDG target, which points to just how deeply its pursuit is ingrained in the modern world. But the most common measure used, GDP, is distorting – it assigns value to undesirable factors, such as dangerous jobs, traffic jams and pollution⁹. And growth cannot continue forever on a finite planet that’s already over-exploited¹⁰.

As a result, many have long argued that economies should focus on development (improving well-being) rather than on growth (increasing economic throughput)¹¹. Many investors now recognize that maximizing short-term growth cannot come at

“If the world’s economic pie cannot increase, it must be sliced in different ways.”

the expense of clean air and water, a stable climate, peaceful communities and resilient ecosystems. Measures that bake explicit social and environmental goals into financial instruments, such as green bonds, sustainability bonds and impact investing, are growing in popularity. And this year, BlackRock of New York City, the world’s leading asset-management firm, joined the Climate Action 100+ investor initiative to push the world’s largest corporate greenhouse-gas emitters to take action on reducing emissions.

Other key tenets of globalization, such as the value of interconnectedness for efficiency’s sake, must be questioned, too. Yes, trade, travel and telecommunications enhance the well-being of billions of people and have marshalled flows of protective equipment and technical expertise to fight the COVID-19 pandemic. But interconnections also increase the likelihood that future global pandemics will emerge and spread, and of financial contagion and the erosion of social protections for workers. Full social and environmental costs, as well as benefits, now need to be re-examined.

Slowing another form of growth – population – should also be a priority. Historical missteps mean that such discussions can be contentious. But if the world’s population rises, as predicted, to 9.7 billion by 2050, it will exacerbate all other threats to sustainability. The SDG of empowering women and educating girls is thus crucial¹². Even more important will be stabilizing population size in high-income countries, where consumption and environmental impacts are much higher than in low-income nations, and where up to 40% of pregnancies are unintended. There is therefore both a need and an opportunity to reinvigorate research and action on the scale of human activity on our finite planet.

Overhaul funding. If the world’s economic pie cannot increase, it must be sliced in different ways. A short-term solution is for OECD

economies to reduce perverse underwriting of enterprises that are anathema to the SDGs. For example, government subsidies to the fossil-fuel industry reached \$4.7 trillion (6.3% of global GDP) in 2015. Continued reliance on fossil fuels limits success in numerous SDGs, from sustainable energy and cities to climate change and biodiversity conservation.

Another way to re-divide the pie is to rein in corporate profits. In 2019, Fortune 500 companies collectively posted profits of \$1.1 trillion. This figure is 200 times the annual budget of the World Health Organization. Although many companies will face losses and bankruptcy as a result of the pandemic, there are ways to recoup funds to support the SDGs. Curbing tax avoidance is one – each year, low-income countries lose 1.3% of their GDP through tactics to avoid corporate taxes.

Companies can also have explicit aims to serve the public good and the SDGs. For example, ‘Certified B Corporations’ balance profit with purpose. Their numbers are increasing and include, for example, food giant Danone North America and global lifestyle brand Patagonia. Bancolombia, South America’s third-largest bank, and consumer goods firm Unilever invest in companies that deliver social and environmental profits.

The mind-boggling sums invested in military defence are also at odds with the global-scale cooperation to which nations committed under the SDGs. Climate change is increasingly recognized as a national-security threat, and in the wake of COVID-19, calls to treat future pandemics as such will also increase. Diverting funds from armaments to address such security threats would provide a funding pathway

to the SDGs that should be encouraged. Protests in the United States are now catalysing calls to downscale and demilitarize municipal law-enforcement agencies, re-routing funds to initiatives on mental health and other social services. A similar process at the global scale would unlock immense resources.

Road ahead

UN conventions have been another casualty of COVID-19. The 2020 UN Biodiversity Conference and the 26th United Nations Climate Change conference (COP26) have been postponed until next year. Although global crises cannot afford delays, these postponements provide an opportunity for the lessons learnt from COVID-19 to be codified into the agreements that will define life on Earth into the next century.

We therefore urge the UN’s High-level Political Forum to work out how and when to update the SDGs. Every goal and target should be screened according to three points: is this a priority, post-COVID-19; is it about development not growth; and is the pathway to it resilient to global disruptions?

It is our hope that 75 years from now, the tragedy of 2020 will also be remembered as a positive watershed, after which we built back better.

The authors

Robin Naidoo is a lead scientist with WWF-US in Washington DC, USA, and an adjunct professor at the Institute for Resources, Environment and Sustainability, University of British Columbia, Vancouver, Canada. **Brendan Fisher** is a professor in the Environmental Program — Rubenstein School of Environmental and Natural Resources and Gund Institute of Environment, University of Vermont, Burlington, Vermont, USA. e-mails: robin.aidoo@WWFUS.ORG; brendan.fisher@uvm.edu

Supplementary information accompanies this comment at go.nature.com/3gd6ohj

COVID-19 IMPACTS ON SUSTAINABLE DEVELOPMENT GOALS

SDG	Status	Example of target(s) affected
Goal 1: No poverty	Threatened* and mitigates†	Target 1.2: halve proportion of people living in poverty by 2030 Target 1.4: provide equal access to basic services
Goal 2: Zero hunger	Threatened	Target 2.3: double agricultural productivity and incomes of small-scale food producers
Goal 3: Good health and well-being	Threatened and mitigates	Target 3.8: achieve universal health coverage
Goal 4: Quality education	Threatened	Target 4.1: provide free, equitable and quality education for all children
Goal 5: Gender equality	Partially threatened‡	Target 5.4: value unpaid care and domestic work by providing public services and policies
Goal 6: Clean water and sanitation	Threatened	Target 6.1: give access to safe and affordable drinking water for all
Goal 7: Affordable and clean energy	Threatened	Target 7.3: double global rate of improvement in energy efficiency
Goal 8: Decent work and economic growth	Threatened	Target 8.1: sustain per capita economic growth
Goal 9: Industry, innovation and infrastructure	Threatened and aggravates§	Target 9.4: upgrade infrastructure and retrofit industries to make them sustainable
Goal 10: Reduced inequalities	Threatened	Target 10.1: sustain above-average income growth of the bottom 40% of the population
Goal 11: Sustainable cities and communities	Threatened	Target 11.2: give access to safe, affordable and sustainable transport systems for all
Goal 12: Responsible consumption and production	Partially threatened	Target 12.5: reduce waste generation through prevention, reduction, recycling and reuse
Goal 13: Climate action	Threatened	Target 13.A: mobilize US\$100 billion annually by 2020 for the Green Climate Fund to address the needs of developing countries
Goal 14: Life below water	Partially threatened	Target 14.1: by 2025, prevent marine pollution of all kinds
Goal 15: Life on land	Threatened and mitigates	Target 15.7: end poaching and trafficking of protected species and address demand and supply of illegal wildlife products
Goal 16: Peace, justice and strong institutions	Partially threatened	Target 16.1: reduce all forms of violence and related deaths everywhere
Goal 17: Partnerships for the goals	Partially threatened	Target 17.2: developed countries should commit at least 0.7% of gross national income in overseas aid for developing and 0.15% to least-developed nations

*Most targets unachievable. †Achieving some targets would have helped prevent pandemic impacts. ‡Some targets affected. §Achieving target would have made pandemic impacts worse.

- Nilsson, M., Griggs, D. & Visbeck, M. *Nature* **534**, 320–322 (2016).
- Laurance, W. F. & Arrea, I. B. *Science* **358**, 442–444 (2017).
- Hopcraft, J. G. C. et al. *Conserv. Biol.* **29**, 932–936 (2015).
- Chinazzi, M. et al. *Science* **368**, 395–400 (2020).
- Shepherd, K. et al. *Nature* **523**, 152–154 (2015).
- Fisher, B. et al. *Lancet Planet. Health* **3**, e112–e113 (2019).
- Johnston, C. K. et al. *Proc. R. Soc. B* **287**, 20192736 (2020).
- Jones, R. N. et al. in *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* Field, C. B. et al. (eds) 195–228 (Cambridge Univ. Press, 2014).
- Stiglitz, J. E., Sen, A. & Fitoussi, J.-P. *Mis-measuring our Lives: Why GDP Doesn’t Add Up* (New Press, 2010).
- Steffen, W. et al. *Science* **347**, 1259885 (2015).
- Daly, H. E. *Sci. Am.* **293**, 100–107 (2005).
- Crist, E., Mora, C. & Engelman, R. *Science* **356**, 260–264 (2017).