

Lessons learnt: COVID-19 and the climate crisis in South Africa

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Introduction

In June 2021, South Africa was hit with its third wave of COVID-19 infections. COVID-19 has been an unprecedented shock to the globe, with no society or economy remaining unaffected. With this shock, and the dramatic changes that have subsequently taken place, a wealth of new information and knowledge has been generated regarding crisis response across sectors, levels, and institutions. Through the pandemic, all of these spheres have been forced to test new processes and methods of work, governance, planning and collaboration. Now, more than a year since its onset, there has been significant reflection on these new learnings - what will be taken forward into a 'new' normal, and what will be left behind.

These insights are also useful beyond the realm of COVID-19 and public health. They have been applied to numerous other crises, including but not limited to, the climate change. Although different in nature, both are profound shocks to our current economic systems, testing their resilience, fairness, normative bases and even relevance under new conditions.

Therefore, this paper aims to examine the lessons learnt from the COVID-19 pandemic that can be applied to the climate crisis in the South African context. This will be achieved by first briefly examining the similarities and differences between the COVID-19 crisis and the climate crisis. It will then outline six key lessons that can be drawn from the COVID-19 crisis for the South African context. These are: 1) Adequate and accessible social protection is required to protect the most vulnerable; 2) Care work must be appropriately valued; 3) A capable, trustworthy and strong state is essential; 4) Localisation of industrial processes is required to build resilient economies; 5) International cooperation is vital to success; and 6) Crises worsen inequalities.

Climate change and COVID-19: a tale of two crises

The COVID-19 pandemic and climate change (a climate 'crisis') are two of the most pressing crises facing both South Africa and the world. Climate change both precedes the pandemic and is likely to outlast it. Commentators and academics around the world have drawn comparisons between the two in the hope of drawing lessons from COVID-19 to address climate change.

The basis of these comparisons are a number of analytical similarities between the two. Firstly, both are truly global in nature. While each country is affected somewhat differently, none is unaffected by the direct and indirect impacts of the pandemic and climate change.¹ Secondly, both experience time lags between the onset of the crisis and when its worst effects are experienced.² This means that they have the potential to spiral out of control if early action is not taken, before the worst effects are apparent.³ Thirdly, they are both scientific problems that rely on expert guidance to understand and respond to. However, neither are only technical in nature. They manifest in ways determined by class, race, power, economics and geography. Therefore, solutions also require a holistic, social basis. Lastly,

and linked to this, is that they both already show signs of exacerbating existing inequalities.⁴ This also plays out along numerous axes - race, class, gender, geography, and ability.

Not only are they analytically similar, but they are also tangibly correlated. Climate change, and increased habitat loss, are also likely to increase the frequency of pandemics. Increasing temperatures create the conditions for the spread of many diseases, such as malaria, and encroachment into previously uninhabited areas may result in increasing contact between new species, their pathologies, and human societies.⁵

However, this analogy should not be taken too far. There are also important differences which need to be borne in mind.⁶ There are, of course, obvious differences in their nature, and types of policies required to address them. For example, while COVID-19 requires physical distancing measures, climate change mitigation requires new forms of energy production. This links to their respective timescales, both in terms of their impacts and how quickly they can be brought under control. COVID-19 has been an acute crisis which escalated within a matter of months and is likely to be under control within a few years. The climate crisis on the other hand, has been building up for decades, even centuries. Furthermore, it takes such vast and complex change to address that even at its fastest pace, it will take decades to try and mitigate and manage.

This difference in scope and scale is also linked to another key difference. With COVID-19, the relationship between individual actions - such as physical distancing - and positive outcomes is much clearer to see and more directly experienced. While with climate change there are clear actions that individuals can take to reduce their personal carbon footprint, the positive outcomes of this are less directly experienced. Similarly, the link between countries' individual climate mitigation measures is less direct than those seen with COVID-19 regulations. Countries with better COVID-19 regulations saw directly the benefits associated with them, with limited infections and deaths and reduced impact on the economy.

In addition to being more complex and enduring, the impacts of climate change and required adaptation measures will vary vastly between countries and regions. In some locations, sea level rise will be the biggest threat, requiring targeted adaptation measures along coastlines while in others, it may be drought. This is distinct from COVID-19 which has had similar impacts and mitigation measures instituted across the globe - lockdowns, border closures, physical distancing and vaccinations - albeit to various extents and degrees.

These differences illustrate the complexity of addressing the climate change issue - it is longer, more heterogeneous in impact, and more complex to address. However, we have also built up a vast array of knowledge and experience, and have more time to address it, but this time for learning is running out. Therefore, based on the analytical similarities and the novelty and urgency of COVID-19, there is a unique opportunity to learn an important set of lessons for how to address climate change.

Lessons learnt

- i) *Adequate and accessible social protection is required to protect the most vulnerable*

Social protection refers to policies and programmes required to enable a dignified standard of living for all. This includes both the right to social security and the right to an adequate standard of living, encompassing grants, income support and access to basic services.⁷ Existing and new social security measures have proved to be a lifeline for many people during the COVID-19 pandemic, especially vulnerable groups. This has been an essential part of the response to COVID-19 across the globe, with

an estimated 92% of countries implementing social protection measures since the pandemic's onset.⁸ This has aided in ensuring "inclusive and effective access to health care and income security, thereby supporting jobs, livelihoods and incomes, notably among those in a vulnerable situation".⁹

In South Africa, during the initial response to COVID-19, all social grants saw a R250 top up, a Caregivers Allowance of R500 (per caregiver, not per child) was instituted, and a new Social Relief of Distress (SRD) Grant of R350 per month was created for unemployed individuals who did not receive any other form of grant or Unemployment Insurance Fund (UIF) payment.¹⁰ The social grants are generally considered to be progressively targeted, although insufficient, as they reach the poorest households, and have proved to be a vital source of support. South Africa has one of the most extensive grant systems amongst low- and middle-income countries and with the SRD grant, some, but not all, previously unreached individuals and households were brought in. Evidence suggests that the grants, particularly the SRD grant, played a vital role in reducing poverty and inequality during the pandemic. Without it, poverty would have been an estimated 5% higher amongst the poorest households, while household income inequality would have been between 1.3% and 6.3% higher.¹¹

However, the SRD grant, the Caregivers' Allowance and the grant top-ups proved to be inadequate in scale and time frame, and included biases against women. Although essential, the fact that the SRD grant did not even reach the food poverty line of R585 and the pandemic still saw significant increases in household and child hunger suggest that it was inadequate to truly provide the 'relief of distress' caused by the pandemic. In addition, it has ended prematurely causing significant backlash amongst civil society.¹² The pandemic and its economic effects have continued well into 2021 and are currently (July 2021) being experienced in the form of the third wave. To end these rescue measures in a continued state of crisis, leaves millions of people vulnerable. Lastly, many of those most vulnerable and least supported have been women. While women were the vast majority of recipients of the Caregivers Allowance, this was stopped prior to the SRD grant ending and evidence continues to show that women have been inadequately covered by the SRD grant. In addition, as the Caregivers' Allowance was allocated per caregiver and not per child, caregivers received insufficient support while often caring for multiple children.

The COVID-19 crisis also saw limitations in other forms of social protection, such as the provision of basic services. With extremely high levels of poverty and unemployment, it is vital that the government ensure the right to an adequate standard of living, including healthcare, education, housing and food. Some measures were put in place to help preserve these rights during times of crisis, such as a moratorium on evictions, provision of food parcels, and the ramping up of the healthcare response. However, these have been wholly inadequate to address the existing conditions of poverty, and the ways in which this has been exacerbated by the pandemic. This is worsened by the ongoing austerity measures currently in place, which have resulted in a drop in the real values of the social grants, and chronic underfunding in government provision of these basic services.¹³

Climate change is itself a crisis, but will also manifest as particular, regional, varied and acute crises. Research has shown that overall, the impacts of climate change are likely to hit those most socially and economically vulnerable. Heat stress during heat waves is more likely to affect manual labourers (due to increased exposure to heat and physical activity increasing severity of symptoms) and infants and the elderly (due to reduced physiological ability to regulate the body's temperature).¹⁴ Sea level rise will affect coastal communities that do not have the resources to move elsewhere. Reductions in rainfall affect subsistence farmers more than commercial farmers who usually have access to boreholes, irrigation, insurance in case of crop failure, and diversified financial investments.¹⁵ Increased food prices due to more difficult agricultural conditions will affect the poor more, as they

already spend a disproportionately high amount of their incomes on food, leaving less money for other essential items.

These are only a few ways in which people will be negatively affected by climate change. Apart from mitigation measures, and targeted physical adaptation, social protection will be an essential component of adaptation and increasing resilience. Vulnerability to climate change is not only a product of proximity to disaster, but is also largely dependent on economic stability and well-being.¹⁶ Through adequate and comprehensive social protection, individual, household and community resilience can be improved by providing basic resources to institute adaptive measures, and so that they can respond to and recover from shocks and acute crises.

Comprehensive social protection includes universal provision of social security and basic services. Universal social security should encompass a Universal Basic Income Guarantee (UBIG), as well as increased access to UIF for workers currently excluded/underrepresented in the system, such as informal workers and domestic workers. The idea of a UBIG has been around for a long time both internationally and in South Africa. The COVID-19 crisis has once again placed it firmly on the policy agenda with the recognition that this kind of support is vital in the face of rising unemployment, poverty and hunger.¹⁷

This does not preclude other forms of social and economic support during periods of crisis. For example, the Temporary Employment Relief Scheme (TERS), although not without faults, provided employers with the means necessary to ensure that worker incomes could at least be partially maintained in the context of economic shutdown. However, by providing a base of universal social security, such as through the UBIG, the destitution experienced prior to COVID-19, and exacerbated by it, may be reduced and mitigated.

ii) Care work must be appropriately valued

For one of the first times in history, work around the world was clearly distinguished between 'essential' and 'non-essential'. Essential work included the production and distribution of food and medicine and the provision of basic services such as healthcare, energy, banking and internet services.¹⁸ However, we also saw a 'shutdown' of other forms of essential work, such as schools and Early Childhood Development centres which form fundamental parts of how we care for children in modern society. The health impacts of the pandemic, and the increased requirements of care at home as a result of shutdowns, illustrated that we are in a crisis of care.

Care work goes beyond doing health-related work. Broadly defined, it includes any work that involves looking after the "physical, psychological, emotional and developmental needs of one or more other people".¹⁹ Therefore, care work must form an essential part of any society and economy that values well-being, solidarity and people's development.

More and more people need care - children, the elderly, people who are sick or those who live with disabilities. This list includes all people at some point in their lives. And yet, care has been systemically undervalued and often ignored, particularly within the economy. Care and healthcare systems have been chronically underfunded through austerity measures that have reduced budgets for social spending. Even during the COVID-19 pandemic which has shed light on the gaps and necessities within our healthcare system, the South African health budget tabled in February 2021 proposed a R50.3-billion reduction in public health spend over the next 3 years.^{20,21}

Reduced public spending on health and education does not mean that care work is left undone. Instead, it is mainly women who pick up this burden. Around the world, reports show that women bore the biggest burden of unpaid care during lockdowns.²² And even in cases where care is professionalised, it is generally done by Black women who receive low salaries for their service, receive little to no benefits and have seen little security and support.

Care work is essential and should be valued all the time. However, it is particularly necessary in times of crisis when more people are sick, mental health concern sky rocket, the elderly are worst affected and traditional institutions, such as schools, are suspended. This applies not only to health crises, but also to the climate crisis.

Climate change increases the burdens of care. In the acute crises of climate change, whether that be heat waves, storms and flooding, or fires, care workers are on the front lines of facing the consequences these disasters have on human life. Climate change is also expected to bring new diseases, increasing the need for health care, reducing food and water security and availability, and increasing the time and effort required to provide these. Without significant reform, this is likely to place huge societal pressure on women and girls. Excessive, un/underpaid care work acts as an obstacle to women's participation both economically and politically - "in Bolivia 42% of women say that care work is the biggest obstacle to their political participation".²³ This produces further systemic problems such as women's economic dependence on men, which contributes to the scourge of gender-based violence.

In order to address this, our societal and economic valuing and allocations of care need to be radically reformed.²⁴ This should be done through: paying care workers better to represent their true societal and economic value; investing more in public provision of health care, including childcare, care for the elderly and the disabled; increasing investment in other services that make care work easier, such as water and sanitation systems, and public education; and instituting policies to redistribute unpaid care work in the household and improve well-being, such as through compulsory equal parental leave, flexible working hours, and a shift towards a 4-day week.

Not only does this support society as a whole through improved well-being, access to care, and gender equality, increased provision of professional care work is an example of a low-carbon job. This can also take the form of care for the environment. Jobs such as environmental restoration, clearing and cleaning of waterways and wetlands, removal of alien invasive plants, and agro-ecological agriculture could be categorised as care work. These too can provide the basis for high numbers of low-carbon, climate jobs that improve overall well-being and enhance socio-ecological resilience.

This shift in how we understand and value care work and the role of care in society's well-being, is part of a broader shift in redefining the work that is prioritised and valued in society. This must be focused on work that contributes positively to society, where work that is essential for life and well-being is socially and economically valued and remunerated, and that guides us in the direction of a low-carbon and climate-resilient society.

iii) A capable, trustworthy and strong state is essential

With the rise and expansion of neoliberalism in the decades prior to the pandemic, the role of the state took on a form different to the one occupied in the 1950s and 60s. Some have argued that neoliberalism saw the 'reduction' of the state, due to the key components of neoliberalism including the privatisation of previously public institutions and services, the deregulation of markets and

reductions in government spending and welfare.²⁵ While all of these components have certainly been key parts of the neoliberal turn, others have highlighted that rather than understanding this as a weakening or reduction in the state, it should be better understood as a 'repurposing'.²⁶ Under neoliberalism, this new 'purpose' is to support and regulate markets, while increasing opportunities for profit and financialisation.

With the pandemic, the importance of the state has received new attention and been reemphasised. States have formed the bedrock of almost all responses to COVID-19. They have been the point of decision-making regarding lockdown measures, regulations and border controls; the main source of health advice communications for the general public; essential for managing the inputs of different sectors and stakeholders to prevent siloed approaches; and the main forum for negotiations for vaccines in global forums such as COVAX. They have also been the main provider of healthcare in almost all countries, and where necessary, have been central in harnessing, managing and distributing products and services from the private sector. For example, in Spain, there was a temporary nationalisation of private sector health services during the worst periods of the pandemic.²⁷ From a financing perspective, public finance is estimated to have funded over 90% of the vaccine development.^{28,29} States have also been decision-makers and sources for most social and economic relief, providing previously unheard of amounts of social protection and fiscal stimulus around the world.

Given the similarities between the pandemic and the climate crisis, including its global nature, the requirement of international cooperation and strong legislation, this reemphasis on the state has important implications for how we address climate change. However, up to this point, while states have taken a central role in international forums such as the United Nations Framework Convention of Climate Change (UNFCCC) and the Paris Agreement, in formulating climate mitigation targets and in creating national frameworks on climate change, states have arguably been more hands-off in their response to the climate crisis and much more reliant on market-mechanisms to reduce emissions than has been seen under COVID-19.

COVID-19 saw governments take actions previously unheard of in much of the world. In South Africa, these included stringent restrictions on mobility through curfews, travel bans and border controls; alcohol and cigarette bans; and compulsory mask wearing. Countries and regions considered as exemplars of well-managed and successful pandemic responses include Vietnam, Singapore, South Korea, Mauritius and the Indian state of Kerala. Some defining features of these responses included early, decisive action in instituting preventative measures, including but not limited to, lockdowns, and consistent and transparent messaging around the pandemic, communicating its severity clearly and often.³⁰ This also requires strong leadership within the state, in order to ensure messaging and policy alignment across departments and levels. Other successful measures included widespread, free and easily accessible testing and contact-tracing capacity which could be ramped up during the pandemic, but relied on years of investment, preparation and capacity.³¹ In many African countries which saw successful COVID-19 responses, this was partly attributed to previous experience with the Ebola epidemic and expansive systems of community health care workers. Despite the important role of centralised decision-making and infrastructure, the ability to adapt, be flexible and learn proved vital in many successes.³² In the case of Mauritius, various platforms were used by the government to receive feedback from the public which was used as a learning tool for improvement.³³

Many of these actions were implemented early on in South Africa too, which saw the government take swift action by instituting a strict lockdown, and introducing context-specific regulations such as the alcohol bans to reduce the burden on the health system. However, the response to COVID-19 was also plagued by bureaucratic inconsistencies and obstacles, particularly around vaccine preparation,

procurement and rollout, and wide-scale corruption at every level of government. Further, the socio-economic relief measures made available, as discussed above, were inadequate, and in the case of business relief, poorly targeted and designed.

In order to address the climate crisis, governments need to play a similar, but expanded, role. They need to take early and most importantly, decisive, action; they need to coordinate across levels and departments to provide consistent message and policy goals; there should be two-way communication and feedback with the broader public; and they require state capacity and preparation for times of crisis. The emphasis here however, is on the government's role in taking action. Under neoliberalism, much of the state's role has been to address market failures and externalities, acting only in response to market crises. This has meant that it carries the burden of the risks of the private sector, but bears none of the rewards. Globally, this has been the case where there has been a 'socialising of risk and privatising of reward'.³⁴

However, in order to act proactively, provide positive direction and capacitate itself for times of crisis, the state must also act as a key investor, both in itself and the economy. This requires designing *and implementing* cross-sectoral policy to achieve our climate goals in ways that are mainstreamed across all aspects of government, together with making substantive, albeit sometimes risky, investments to achieve these goals.³⁵ This cannot be done in the context of austerity, as it requires substantive investment in government projects and programmes related to mitigation and adaptation, as well as in the capacity of the state itself. However, this does not mean that government spending is only a source of loss and debt creation. These investments must be seen exactly as they are, as *investments*, where the state receives returns resulting in a socialising of risk *and* profit.

In some countries, this shift in approach can already be gleaned in the recovery measures being introduced. For example, in the United States, President Biden has been pushing for a multitrillion dollar recovery plan focusing on human infrastructure, rebuilding and expanding transport and water systems, and substantially increasing renewable energy use and energy efficiency, while at the same time creating millions of jobs.³⁶ In South Africa, however, the government's neoliberal approach to economic policy has been reinforced by the pandemic, most strikingly observed by its renewed commitment to fiscal consolidation.³⁷

The South African government must utilise the recovery from COVID-19 as an opportunity. With states playing substantive roles in providing and guiding relief and recovery, there is an opportunity for these principles to be embedded into long-term planning and policy development immediately. This could take the form of investments where the state gets an equity stake, instead of bailouts, and conditionalities attached to state support, such as low-carbon commitments, worker retainment and decent work principles, and the requirement for affordable and accessible provision of social goods.³⁸ Some of these principles have already been applied in countries such as Denmark and Austria, and could similarly be maximised in the South African context.

iv) *Localisation of industrial processes is required to build resilient economies*

Localisation of industrial processes has supposedly been part of the South African government's priorities for a long time and is included in the Economic Reconstruction and Recovery Plan (ERRP), but it has been largely unsuccessful. Localisation refers to the increased industrialisation of domestic production for the economy. South Africa's economy has been shaped by the Minerals and Energy Complex (MEC), which still dominates. The MEC is a system of capital accumulation, predicated on the exploitation of labour and nature; the devaluing of reproductive labour; and the alignment of political

and economic vested interests within the mining and energy sectors that has been fundamental to the way in which the South African economy, and society, has been structured.³⁹ Although mining no longer plays as large a role in South Africa in economic terms (only contributing approximately 8% to GDP), the MEC has seen an entrenchment of the interests of financialised mining, and related, capital.⁴⁰ The sectoral composition of the economy has shown premature deindustrialisation, with manufacturing shifting from 21% of the economy in 1990 to 13% in 2015, and finance growing from 11% to 18% over the same time period.⁴¹ Further, South Africa has been able to rely on cheap coal resources for electricity. Fossil fuels comprise 78% of the primary energy supply (59% coal, 16% crude oil, 3% natural gas), and the energy sector produces 80% of South Africa's total emissions.⁴² This leaves the South African economy in a very vulnerable position regarding both global supply chains, as it has failed to fully industrialise, as well as climate change due to the entrenched position of fossil fuels in the economy.

South Africa has not successfully implemented industrial policy to date. Key to successful industrial policy is trade protection of infant industry, and a strong, focused and capable state that can enforce policy, monitor improvements and respond to changes.⁴³ Industrial policy in South Africa has been marred by inconsistency and inadequate protection of industry. Further, the lack of focus on the manufacturing sector where the greatest opportunity for increasing returns to scale exists, has limited opportunities for learning and increased productivity. Lastly, firms within the MEC, such as the steel sector, have successfully exploited public incentives without supporting local industrialisation due to a lack of coordination and discipline from the state.⁴⁴

The COVID-19 pandemic has highlighted the need to strengthen local industrialisation and diversify the economy away from the MEC structure. Global supply chains have been significantly disrupted during the pandemic, particularly in food systems and medical manufacturing. Food supply chains have been affected due to labour shortages and disruptions in networks of transportation. Medical manufacturing capacity has proven to be insufficient to respond to a health crisis of this magnitude, with shortages of personal protective equipment, medical equipment and vaccines.⁴⁵ If South Africa were able to increase localisation, we would improve resilience to health crises and even future climate crises.

Another sector which could hold significant benefits is that of renewable energy and specifically, manufacturing of renewable energy technologies. While a transition to renewable energy is promised to create jobs, the majority of jobs in this sector occur within manufacturing, construction and installation, with relatively few required during operations.⁴⁶ Therefore, in order to secure a just transition, make up for the loss of coal jobs, and create new permanent jobs, there must be manufacturing of renewable energy technologies locally. Further benefits of localisation in food systems, medical manufacturing and renewable energy include lower transport costs, lower greenhouse gas emissions as a result, and local and regional economic development.⁴⁷

One example of a promising development in localisation during the COVID-19 pandemic is the local production of ventilators. In April 2020, the Department of Trade and Industry (DTI) tasked the South African Radio Astronomy Observatory (SARAO) with a project to repurpose their capabilities of building a radio astronomy dish towards manufacturing ventilators. The project was successful, managing to produce 20 000 ventilators by November 2020. The success was argued to be because of the prior investment in research infrastructure and funding from the Solidarity Fund.⁴⁸ This type of project represents an example of innovation and localisation that should be implemented across sectors.

Localisation of industrial processes in South Africa would promote diversification, increase productivity and job creation and improve resilience to health and climate crises. There is an opportunity as part of the reconstruction plan to strengthen the approach to localisation and prioritise key sectors of food systems, medical manufacturing and renewable energy technologies to achieve increased resilience.

v) *International cooperation is vital to success*

Both COVID-19 and climate change are global problems that require global, coordinated responses. The nature of our global economy has supported the escalation of these crises. The COVID-19 pandemic was able to spread dramatically due to well-established transport networks and the climate crisis has emerged due to continuing capitalist expansion and extraction of fossil fuels at an international scale.

While these crises have been experienced internationally, there has been a significant lack of global solidarity in tackling them. Despite various international institutions being set up to address the climate crisis, including the Intergovernmental Panel on Climate Change (IPCC), the UNFCCC, and more recently the Paris Agreement, international greenhouse gas emissions have not been significantly reduced and the impacts of climate change are already being felt.⁴⁹ Similarly, despite calls for international cooperation to address the COVID-19 pandemic, countries are responding by putting their citizens first, despite recommendations by public health experts.

Vaccine nationalism has dominated the international response to COVID-19, and this has happened because of global inequalities and an imbalance in power. Vaccine nationalism is exhibited when countries vaccinate their entire population before supporting vaccination programmes in other countries, and when countries and companies refuse to release the intellectual property for vaccines so that other countries can manufacture them. Both forms of vaccine nationalism are prevalent, and jeopardise the possibility of overcoming the COVID-19 pandemic globally, as “an uncoordinated patchwork of immunity could exacerbate the rise of escape variants that could alter vaccines’ effectiveness”.⁵⁰ Despite health experts recommending that all vulnerable groups should be prioritised in vaccine programmes, most Global North countries are vaccinating their healthy young populations while the Global South is left with inadequate access to vaccines even for vulnerable population groups. This is exacerbated by the lack of local research, innovation and manufacturing capacity of vaccines and medical products within many countries in the Global South, including South Africa, outlined in the previous section.

A similar situation has occurred regarding climate policy, as Global North countries exert influence over global processes, and countries in the Global South set to suffer the impacts of their inaction as well as continue to struggle against a growing debt crisis. Europe and the United States have contributed the most to total emissions over the past 250 years, with dramatic increases since the 19th century.⁵¹ While the UNFCCC and the Paris Agreement have a principle of common but differentiated responsibility, so that the Global North would take responsibility for emissions so far, this has not translated in practice. At present, the obligations on the Global North are to support others with finance, technology and capacity-building. However, what would be more valuable, in addition to these, is debt relief, as countries of the Global South have taken on additional debt to address the COVID-19 crisis which will leave them with less fiscal space to address climate change.⁵²

South Africa should be doing much more to demand justice in global health systems and climate agreements. South Africa has already raised its voice to demand a waiver of the intellectual property

licencing of vaccines and other health-related technology, alongside India and other countries of the Global South.⁵³ This was an important show of leadership, but more can be done. As mentioned, the issue of finance to address these crises is growing with debt levels and is based on current financial options which are not feasible for Global South countries because they are too expensive, place the risk on governments, and contain restrictive conditions.⁵⁴ Other initiatives that would support global cooperation, unity and social justice in the face of these global crises include leading a negotiation around a COVID-19 Debt Relief Initiative; ensuring a united front by African countries on international forums; and designing a regional economic reconstruction plan to facilitate regional development.⁵⁵ South Africa could play a prominent role in advocating for social justice in the COVID-19 response, particularly around finance, and could then use this momentum and precedent to advocate for further climate justice.

vi) *Crises worsen inequality, especially gender inequalities*

Crises of all natures typically hit the most vulnerable the hardest. This has clearly been observed in the pandemic. In South Africa, those hardest hit by the economic impacts of COVID-19 and associated lockdowns have been women, children, Black people, informal workers and low-income workers.^{56,57,58} These groups experienced higher rates of job loss and lower rates of job return when lockdowns eased, higher rates of income loss, and higher incidences of hunger. This is also true globally, as women and Black people were disproportionately employed in the hardest hit sectors.⁵⁹ This is due to the ways in which these groups were integrated into the economy prior to the pandemic. They have experienced systemic and historical racism and oppression, workplace insecurity and casualisation, low wages and wage growth and little scope for social mobility.

The highest income classes, on the other hand, have seen fewer negative impacts of the pandemic and associated lockdowns, with the world's wealthiest even experiencing *increases* in wealth. Many middle class professionals were also able to work remotely, rely on savings and other sources of income and occupied secure contracts which saw substantially fewer job losses than those in informal, temporary and low-skilled labour.⁶⁰ This inequality has not only played out in economic indicators such as employment and income, but also health outcomes, access to internet, and access to virtual education.⁶¹

Similarly, inequalities are worsened by climate change. As outlined above, social and economic vulnerabilities are key determinants of the severity and impacts of climate change events. Disadvantaged groups experience worse effects due to higher exposure to hazards, more susceptibility to damage and reduced ability to address and recover.⁶² This results in a situation where individuals, families and communities are trapped by a vicious cycle of worsening well-being, livelihoods, health and safety. Wealthy individuals and households on the other hand, are able to shield themselves from many of the impacts of climate change through adaptive technologies, diversified income streams, financial resources to rebuild/recover, and insurance.⁶³

As highlighted above, these inequalities are the result of systems of oppression, globally and in South Africa, that are perpetuated by current economic structures. It is therefore vital to hold justice at the centre of the national and global responses to these crises. One framework of justice which is starting to be adopted within the climate justice sphere, highlights three types of justice: procedural, restorative and distributive.⁶⁴ Procedural justice addresses the question of how justice and fairness are incorporated into responses in terms of meaningful participation and governance. Restorative justice addresses how past harms on communities, individuals or even environments, are addressed.

Distributive justice addresses the question of how costs, and benefits, of the crisis are allocated. Further research is required to understand how these conceptions of justice could be incorporated into the national and global responses to crises that address the inequalities and power dynamics at play.

Discussion and conclusion

As with COVID-19, climate change will continue to worsen poverty and inequality in South Africa and globally. This means that it is those least responsible for causing this crisis that will suffer the worst consequences, an injustice that must not be perpetuated. In order to do so, it is necessary to take note of and use the lessons from our experience with COVID-19.

These lessons include the importance of adequate, comprehensive, unconditional and unending social protection. This is required to address both the chronic and acute crises expected with increasing severity of climate change. Secondly, it requires a re-evaluation of the importance of care work, both as an essential part of system resilience in the face of crisis, as well as low-carbon and environmentally restorative work. In doing so, the burden of care must also be shifted away from predominantly women to society and genders collectively. Thirdly, the state needs to take a central and decisive role in addressing climate change. This must be through providing a clear direction and acting early on social, economic and industrial policy and investment. This role of the state is essential to both finance development and adaptive measures, as well as ensure that the direction of change is decisively and timeously guided. Fourthly, and linked to this, is the necessity of localisation of industrial and manufacturing processes which increase productivity and job creation and improve resilience to health and climate crises. The fifth lesson highlights the need for international cooperation and solidarity to ensure that inequality between countries is not worsened, particularly relating to climate finance and the common but differentiated responsibility principle. Lastly, the inequality in impact of these crises shows the need to hold justice at the centre of national and global responses to climate change.

Together, the lessons provide a glimpse of a vision for an economy that is more just, and what is required to reach it. They also illustrate why a *just* transition is an essential element in any response to climate change. The systems that have created the crisis are the same ones that have exploited both humans and the broader environment for centuries. The value of the three justice approaches outlined above, is that it embeds this understanding into a coordinated and holistic, economy-wide response that directly addresses some of these underlying problems. To implement any and all of these lessons, an orientation of the state and policy making is required that fundamentally addresses the structure of the economy and lays the foundation of a just transition through labour support, industrial policy and social protection.

If the opportunities to learn from the current crisis are taken, there is time for a vastly improved response to the climate crisis approaching us. Without it however, we will be left as unprepared and ill-equipped as we were for this pandemic, with disastrous consequences for millions of people.

Notes:

- ¹ Cole, Jennifer, and Klaus Dodds. 2020. "Unhealthy Geopolitics: Can The Response To COVID-19 Reform Climate Change Policy?". *Bulletin Of The World Health Organization* 99 (2): 148-154.
- ² Manzanedo, Rubén D., and Peter Manning. 2020. "COVID-19: Lessons For The Climate Change Emergency". *Science Of The Total Environment* 742: 140563.
- ³ Klenert, David, Franziska Funke, Linus Mattauch, and Brian O'Callaghan. 2020. "Five Lessons From COVID-19 For Advancing Climate Change Mitigation". *Environmental And Resource Economics* 76 (4): 751-778.
- ⁴ Ibid.
- ⁵ Patz, J.A., A.K. Githeko, J.P. McCarty, S. Hussein, U. Confalonieri, and N. De Wet. 2003. "Climate Change And Infectious Diseases". In *Climate Change And Human Health: Risks And Responses*. Geneva: World Health Organization.
- ⁶ Manzanedo, Rubén D., and Peter Manning. 2020. "COVID-19: Lessons For The Climate Change Emergency". *Science Of The Total Environment* 742: 140563.
- ⁷ Institute for Economic Justice. 2021. "Social Protection During COVID-19: The Rights To Social Security And An Adequate Standard Of Living". COVID-19 Economics And Human Rights Factsheet #3. <https://www.iej.org.za/wp-content/uploads/2021/03/IEJfactsheet-3-Social-Protection-during-COVID.pdf>.
- ⁸ "Social Protection Responses To COVID-19 Crisis Around The World". 2021. <https://www.social-protection.org/gimi/ShowWiki.action?id=3417>.
- ⁹ International Labour Organization. 2020. "A Quick Reference Guide To Common COVID-19 Policy Responses". https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---act_emp/documents/publication/wcms_754728.pdf.
- ¹⁰ In April 2020, when the additional grant support was announced, it was initially stated that Child Support Grant beneficiaries would receive an extra R300 in May and from June to October they will receive an additional R500 each month. Later it was clarified that this R500 was per caregiver, *not* per child as with the normal CSG. Therefore, we use the term Caregivers' Allowance to distinguish between the two.
- ¹¹ Van der Berg, Servaas, Leila Patel, and Grace Bridgman. 2021. "Food Insecurity In South Africa: Evidence From NIDS-CRAM Wave 5". National Income Dynamics Study (NIDS) – Coronavirus Rapid Mobile Survey (CRAM). <https://cramsurvey.org/wp-content/uploads/2021/07/13.-Van-der-Berg-S.-Patel-L-and-Bridgeman-G.-2021-Food-insecurity-in-South-Africa-%E2%80%93Evidence-from-NIDS-CRAM-Wave-5.pdf>.
- ¹² Black Sash. 2021. "Open Letter: Government Must Extend The Covid-19 SRD Grant!", 22 April. <https://www.blacksash.org.za/index.php/media-and-publications/media-statements/716-open-letter>.
- ¹³ <https://www.iej.org.za/wp-content/uploads/2021/03/IEJfactsheet-3-Social-Protection-during-COVID.pdf>
- ¹⁴ Kovats, R. Sari, and Shakoor Hajat. 2008. "Heat Stress And Public Health: A Critical Review". *Annual Review Of Public Health* 29 (1): 41-55.
- ¹⁵ Bahta, Y.T. 2020. "Smallholder Livestock Farmers Coping And Adaptation Strategies To Agricultural Drought". *AIMS Agriculture And Food* 5 (4): 964-982.
- ¹⁶ Vincent, Katharine. 2004. "Creating An Index Of Social Vulnerability To Climate Change For Africa". Tyndall Centre Working Paper No. 56. Norwich.
- ¹⁷ Institute for Economic Justice. 2021. "Introducing A Universal Basic Income Guarantee For South Africa". Social Protection Series Policy Brief #1. <https://www.iej.org.za/introducing-a-universal-basic-income-guarantee-for-south-africa/>.
- ¹⁸ Republic of South Africa. 2020. "Essential Services During The Lockdown Period". <https://sacoronavirus.co.za/2020/03/20/essential-services-during-the-lockdown-period/>.
- ¹⁹ "Care Work". 2021. European Institute For Gender Equality. <https://eige.europa.eu/thesaurus/terms/1059>.
- ²⁰ National Treasury Republic of South Africa. 2021. "Budget Review 2021". Pretoria. <http://www.treasury.gov.za/documents/national%20budget/2021/review/FullBR.pdf>.
- ²¹ McLaren, Daniel, Mbali Baduza, Sasha Stevenson, and Julia Chaskalson. 2021. "Health Budget Slashed Despite Vaccine Commitments". *Daily Maverick*, 26 February, 2021. <https://www.dailymaverick.co.za/article/2021-02-26-health-budget-slashed-despite-vaccine-commitments/>.
- ²² Barker, Gary, Aapta Garg, Brian Heilman, Nikki Van der Gaag, and Rachel Mehaffey. 2021. "State Of The World's Fathers: Structural Solutions To Achieve Equality In Care Work". Washington DC: Promundo. http://s30818.pcdn.co/wp-content/uploads/2021/06/210610_BLS21042_PRO_SOWF.v08.pdf.

-
- ²³ Oxfam International. 2021. "Time To Care: Unpaid And Underpaid Care Work And The Global Inequality Crisis". Oxford. <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620928/bp-time-to-care-inequality-200120-en.pdf>.
- ²⁴ 350Africa.org, Institute for Economic Justice and Climate Justice Coalition. 2021. "No Going Back To Normal: Imagining A Just Recovery In South Africa". <https://www.iej.org.za/wp-content/uploads/2020/09/Just-Recovery-Report-full-report.pdf>.
- ²⁵ Kotz, David. 2002. "Globalization And Neoliberalism". *Rethinking Marxism* 12 (2): 64-79.
- ²⁶ Konings, Martijn. 2009. "Rethinking Neoliberalism And The Subprime Crisis: Beyond The Re-Regulation Agenda". *Competition & Change* 13 (2): 108-127.
- ²⁷ Payne, Adam. 2020. "Coronavirus: Spain Nationalises All Private Hospitals, Enters Lockdown". *Business Insider South Africa*, 17 March, 2020. <https://www.businessinsider.co.za/coronavirus-spain-nationalises-private-hospitals-emergency-covid-19-lockdown-2020-3?r=US&IR=T>.
- ²⁸ Safi, Michael. 2021. "Oxford/Astrazeneca Covid Vaccine Research 'Was 97% Publicly Funded'". *The Guardian*, 15 April, 2021. <https://www.theguardian.com/science/2021/apr/15/oxfordastrazeneca-covid-vaccine-research-was-97-publicly-funded>.
- ²⁹ Hoecklin, Madeleine. 2021. "€93 Billion Spent By Public Sector On COVID Vaccines And Therapeutics In 11 Months, Research Finds". *Health Policy Watch*, 12 January, 2021. <https://healthpolicy-watch.news/81038-2/>.
- ³⁰ Lilleker, Darren G., Ioana A Coman, Miloš Gregor, and Edoardo Novelli. 2021. *Political Communication And COVID-19*. New York: Routledge.
- ³¹ Partridge-Hicks, Sophie. 2020. "5 Countries That Are Getting COVID-19 Responses Right". Blog. *Global Citizen*. <https://www.globalcitizen.org/en/content/countries-with-best-covid-responses/?template=next>.
- ³² McClelland, Amanda, and Jobin Abraham. 2021. "Exemplars In Global Health". *Essential Actions To "Box In" The Virus*. <https://www.exemplars.health/emerging-topics/epidemic-preparedness-and-response/covid-19/covid-19-essential-actions>.
- ³³ World Health Organisation and Government of Mauritius. 2021. "Best Practices And Experience Of Mauritius' Preparedness And Response To COVID-19 Pandemic". *Inter-Action Review* 1.
- ³⁴ Mazzucato, Mariana. 2013. "Five Minutes With Mariana Mazzucato: 'We Have Socialised The Risk Of Innovation But Privatised The Rewards'". Blog. <https://blogs.lse.ac.uk/politicsandpolicy/5-minutes-with-mariana-mazzucato/>.
- ³⁵ Mazzucato, Mariana. 2021. "The Green Entrepreneurial State". In *The Politics Of Green Transformations*. London: Routledge.
- ³⁶ "The Biden Plan To Build A Modern, Sustainable Infrastructure And An Equitable Clean Energy Future | Joe Biden For President: Official Campaign Website". 2021. *Joe Biden For President: Official Campaign Website*. <https://joebiden.com/clean-energy/>.
- ³⁷ Republic of South Africa. 2021. "Minister Tito Mboweni: 2021 Budget Speech". <https://www.gov.za/speeches/minister-tito-mboweni-2021-budget-speech-24-feb-2021-0000>.
- ³⁸ Mazzucato, Mariana. 2020. "Capitalism After The Pandemic: Getting The Recovery Right". *Foreign Affairs*, November, 2020. <https://www.foreignaffairs.com/articles/united-states/2020-10-02/capitalism-after-covid-19-pandemic>.
- ³⁹ Fine, Ben, and Zavareh Rustomjee. 1996. *The Political Economy Of South Africa*. London: C. Hurst & Co. Publishers.
- ⁴⁰ Minerals Council South Africa. 2020. "Facts And Figures 2019". <https://www.mineralscouncil.org.za/downloads/send/18-current/1250-facts-and-figures-2019>.
- ⁴¹ Trade and Industrial Policy Strategies. 2016. "Analysis Of Existing Industrial Policies And The State Of Implementation in South Africa". Friedrich Ebert Stiftung. https://southafrica.fes.de/fileadmin/user_upload/TIPS_IP_REVIEW_FES-Revised_Final_Dec_2016_edit.pdf.
- ⁴² Department of Environmental Affairs, Republic of South Africa. 2021. "National Inventory Report: South Africa 2000-2015". <https://www.environment.gov.za/sites/default/files/reports/GHG-National-Inventory-Report-SouthAfrica-2000-2015.pdf>.
- ⁴³ Wade, Robert H. 2018. "The Developmental State: Dead Or Alive?". *Development And Change* 49 (2): 518-546.
- ⁴⁴ Roberts, Simon, and Zavareh Rustomjee. 2010. "Industrial Policy Under Democracy: Apartheid's Grown-Up Infant Industries? Iscor And Sasol". *Transformation: Critical Perspectives On Southern Africa* 71 (1): 50-75.
- ⁴⁵ Newell, Robert, and Ann Dale. 2020. "COVID-19 And Climate Change: An Integrated Perspective". *Cities & Health*, 1-5.
- ⁴⁶ McDaid, Liziwe. 2016. "Renewable Energy Independent Power Producer Procurement Programme Review 2016: A Critique Of Process Of Implementation Of Socio-Economic Benefits Including Job Creation". Cape Town: Alternative

Information Development Centre. <https://thegreenconnection.org.za/doaction/wp-content/uploads/2016/07/RENEWABLE-ENERGY-BOOKLET-FINAL-2016-review.pdf>.

⁴⁷ Ibid.

⁴⁸ Timeslive. 2020. "https://www.timeslive.co.za/News/South-Africa/2020-12-17-Sa-Made-20000-Ventilators-For-Covid-19-Patients-At-A-Cost-Of-R250m/". Timeslive, 17 December, 2020. <https://www.timeslive.co.za/news/south-africa/2020-12-17-sa-made-20000-ventilators-for-covid-19-patients-at-a-cost-of-r250m/>.

⁴⁹ Somerville, Peter. 2020. "A Critique Of Climate Change Mitigation Policy". *Policy & Politics* 48 (2): 355-378.

⁵⁰ Katz, Ingrid T., Rebecca Weintraub, Linda-Gail Bekker, and Allan M. Brandt. 2021. "From Vaccine Nationalism To Vaccine Equity — Finding A Path Forward". *New England Journal Of Medicine* 384 (14): 1281-1283.

⁵¹ Ritchie, Hannah. 2021. "Who Has Contributed Most To Global CO2 Emissions?". Blog. Our World In Data. <https://ourworldindata.org/contributed-most-global-co2>.

⁵² Userree, Dev. 2021. "Redesigning Debt: Lessons From HIPC For COVID, Climate And Nature". London: International Institute for Environment and Development. <https://pubs.iied.org/sites/default/files/pdfs/2021-07/20276iied.pdf>.

⁵³ Patel, Ashraf. 2021. "WTO'S IP Waiver For Covid-19 Vaccines Faces Structural Headwinds". IOL, 11 June, 2021. <https://www.iol.co.za/news/politics/opinion/wtos-ip-waiver-for-covid-19-vaccines-faces-structural-headwinds-816473d6-bcaf-4187-82bc-dceb948d2fa1>

⁵⁴ Herbst, Penny Herbst. 2021. Webinar: Climate Change and South African Foreign Policy: From G7 to G20, 9 July, The African Climate Foundation and SAIIA.

⁵⁵ Le Pere, Garth. 2021. "COVID-19 And South Africa's Foreign Policy". South African Institute of International Affairs. <https://saiia.org.za/research/covid-19-and-south-africas-foreign-policy/>.

⁵⁶ Spaul, Nic. 2020. "Overview And Findings NIDS-CRAM Synthesis Report Wave 1". <https://cramsurvey.org/wp-content/uploads/2020/07/Spaul-et-al.-NIDS-CRAM-Wave-1-Synthesis-Report-Overview-and-Findings-1.pdf>.

⁵⁷ Spaul, Nic. 2021. "Synthesis Report NIDS-CRAM Wave 4". <https://cramsurvey.org/wp-content/uploads/2021/05/1.-Spaul-N.-Daniels-R.-C-et-al.-2021-NIDS-CRAM-Wave-4-Synthesis-Report..pdf>.

⁵⁸ Spaul, Nic. 2021. "Synthesis Report NIDS-CRAM Wave 5". <https://cramsurvey.org/wp-content/uploads/2021/07/1.-Spaul-N.-Daniels-R.-C-et-al.-2021-NIDS-CRAM-Wave-5-Synthesis-Report.pdf>.

⁵⁹ Berkhout, Esmé, Nick Galasso, Max Lawson, Pablo Andrés Rivero Morales, Anjela Taneja, and Diego Alejo Vázquez Pimentel. 2021. "The Inequality Virus". Oxford: Oxfam International. <https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621149/bp-the-inequality-virus-250121-en.pdf?sequence=1>.

⁶⁰ Jain, Ronak, Ihsaan Bassier, Joshua Budlender, and Rocco Zizzamia. 2021. "The Labour Market And Poverty Impacts Of COVID-19 In South Africa: An Update With NIDS-CRAM Wave 2". <https://cramsurvey.org/wp-content/uploads/2020/09/8-Jain-R.-Bassier-I.-Budlender-J.-Zizzamia-R.-2020-The-labour-market-and-poverty-impacts-of-COVID-19-in-South-Africa-An-update-with-NIDS-CRAM-Wave-2.pdf>.

⁶¹ Mohohlwane, Nompumelelo, Stephen Taylor, and Debra Shepherd. 2021. "COVID-19 And Basic Education: Evaluating The Initial Impact Of The Return To Schooling". <https://cramsurvey.org/wp-content/uploads/2020/09/11.-Mohohlwane-N.-Taylor-S-Shepherd-D.-2020-COVID-19-and-basic-education-Evaluating-the-initial-impact-of-the-return-to-schooling.pdf>.

⁶² United Nations Department of Economic and Social Affairs. 2016. "Climate Change And Inequality Nexus". *World Economic And Social Survey 2016*, 21-46.

⁶³ Ibid.

⁶⁴ McCauley, Darren, and Raphael Heffron. 2018. "Just Transition: Integrating Climate, Energy And Environmental Justice". *Energy Policy* 119: 1-7.