

Climate Change and Development in Africa Post COVID-19: Some Critical Reflections

Discussion Paper



United Nations
Economic Commission for Africa

ACP•C
African Climate Policy Centre

COVID-19

The World is currently in the throes of an unprecedented health and economic crisis brought on by the global spread of the novel corona virus induced Covid-19. Covid-19 has already infected millions of people worldwide, with tens of thousands of fatalities. The globalized and interconnected nature of our society and economy have quickly morphed a public health event into a global political, economic, psychological and social crisis of epic proportions. Public health systems across the board have been strained beyond existing capacities, revealing the vulnerabilities of the world's populations to a pandemic. The Covid-19 pandemic has also wrought havoc on economies as a result of the shutting down of almost all economic activities as part of the effort to contain the spread of the virus. The long term effects and impacts of the pandemic are still being assessed and will be felt for many years after the pandemic itself. It is already forecast that there will be no growth in 2020 and 2021, and global GDP will recover to pre-Covid-19 levels only in 2022.¹

Initial indications are that Covid-19 is a zoonotic disease caused by the corona virus making the leap from wildlife to humans, possibly through an intermediate species. There are clear links between health and the environment. Biodiversity loss and proximity to wildlife can create the conditions for illnesses to spread. Research suggests that the emergence of new human diseases is closely linked to loss and degradation of ecosystems and habitats, which in turn is driven by climate change, resource extraction, urban and agricultural expansion and pollution. Rising temperatures have been linked with changes in the range of malarial mosquitoes, and the spread of malaria and the Zika virus. The extent to which growing human pressures on the natural environment is responsible for zoonoses remains the subject of ongoing study. Other environmentally related illnesses such as chronic lung and heart conditions due to long term exposure to pollution make viruses like Covid-19 even more dangerous. However, biodiversity can act as a buffer against the spread of pathogens. Healthy ecosystems translate into resilient and healthy societies.

The fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) notes the significance of vector organisms in transmitting infectious diseases, and further that climate change may alter the distribution of vector species, depending on whether conditions are favourable or unfavourable for their breeding places². Even before the Corona virus outbreak, plans were in place to explore the links between biodiversity and climate change through a joint meeting (scheduled for May 2020, and now postponed) of the IPCC and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). Climate change and biodiversity loss are deeply interlinked, and both are driven by the same factors. However, they have tended to be treated separately in policy and practice³.

A recent project exploring dynamic drivers of disease in Africa⁴ noted that 'over the past few decades, more than 60 per cent of emerging infectious diseases affecting people have had their origin in wildlife or livestock. As well as presenting a threat of global disease outbreak, these zoonotic diseases quietly devastate lives and livelihoods.' This was before Covid – 19, which is very radically devastating whole economies and livelihoods. Among the publications produced by this project, one - 'Structural drivers of vulnerability to zoonotic diseases in Africa'⁵ - concludes, *inter alia*, that addressing the underlying drivers of vulnerability is essential in tackling zoonotic disease in Africa. Like other political economy analyses, the study proceeds to demonstrate how

¹ Economist Intelligence Unit. Sovereign debt crises are coming. <https://pages.eiu.com/rs/753-R1Q-438/images/sovereign-debt-crisis.pdf?mkt>

² <https://archive.ipcc.ch/ipccreports/tar/wg2/index>

³ <https://royalsocietypublishing.org/doi/10.1098/rstb.2019.0120>

⁴ https://steps-centre.org/project/drivers_of_disease/

⁵ Dzingirai, V. et al. Structural drivers of vulnerability to zoonotic disease in Africa. In Philosophical Transactions of The Royal Society B Biological Sciences · July 2017 DOI: 10.1098/rstb.2016.0169

political interests, commercial investments and conflict and securitization all generate patterns of vulnerability, reshaping the political ecology of disease landscapes, influencing traditional coping mechanisms and affecting health service provision and outbreak responses. This echoes the political ecology approach adopted by the African Climate Policy Centre, among others, which recognizes that climate change exacerbates existing vulnerabilities and inequalities, and that historical, political and economic factors determine societal vulnerability to climate change hazards and risks.

While a lot of focus has been devoted to the economic cost of the pandemic, little attention has been paid to the systemic weakness that it has exposed. Public health systems in both developed and less developed countries have been shown to be unfit for purpose in a major pandemic outbreak. Much of this is because of systematic under-expenditure in research and development, infrastructure and human capacities in the sector due to cuts in public expenditure in pursuit of 'competitiveness' in the global economy. Covid-19 has brought into sharp focus the common globalized vulnerabilities to zoonoses affecting all of humanity. The mutation of the novel corona virus from its wildlife reservoir to humans is most probably the result of increasing proximity between humans and wildlife caused by the inexorable expansion of agriculture and urban development into nature, and exacerbated by the production of domestic livestock in factory farm conditions which creates perfect conditions for the replication of viruses.

Climate change exacerbates existing vulnerabilities and inequalities, and that historical, political and economic factors determine societal vulnerability to climate change hazards and risks.

The climate emergency: lessons from COVID-19

In addition to global economies going into a recession, the world is facing two emergencies simultaneously – the Climate emergency and Covid-19. Suggestions that we cannot afford to address climate change, biodiversity loss and economic crises at the same time represent a false choice⁶, all crises must be addressed at the same time. The climate emergency has been unfolding over many decades, and the first global response to it is enshrined in the United Nations Framework Convention for Climate Change concluded in Rio de Janeiro in 1992. The Covid – 19 emergency, on the other hand, emerged only recently in December 2019, and was declared a global emergency in mid-January 2020. In a matter of weeks, Covid-19 has changed the world as we knew it. It has brought commerce to an almost complete standstill, locked down whole nations and quarantined whole populations indoors in accordance with the Siracusa Principles⁷. The response to Covid – 19 has been an unprecedented mobilization of society, business and state resources.

There are many parallels between Covid – 19 and climate change, and many lessons can be learned from the Covid-19 response. The United Nations Economic Commission for Africa estimates that Covid - 19 could cause Africa's economies to contract by between 1.8 – 2.6%, potentially pushing 27 million people into extreme poverty⁸. At the time of writing, Covid-19 has infected more than 6 million people worldwide, with over 370,000 deaths. The World Health Organization estimates that climate change related disasters are responsible for 150,000 deaths/year, and this is projected to rise to 250,000/year by 2030. By way of comparison, in April 2019, cyclone Idai struck 3 southern African countries (Malawi, Mozambique and

⁶ E.g. members of the European Conservatives and Reformists group in the European Parliament have argued for the rolling back of environmental commitments by the European Union.

https://ecrgroup.eu/article/ecr_group_we_need_to_put_pragmatism_first

⁷ Diego S. Silva, Maxwell J. Smith. Health and Human Rights 17/1 Commentary: Limiting Rights and Freedoms in the Context of Ebola and Other Public Health Emergencies: How the Principle of Reciprocity Can Enrich the Application of the Siracusa Principles

⁸ <https://www.uneca.org/publications/covid-19-africa-protecting-lives-and-economies>

Zimbabwe) resulting in over a thousand deaths; 2,486 persons injured; 196,255 households displaced; and 2 968,895 persons affected⁹. Add to this more than 800,000 hectares of crops destroyed just before harvest, over 3000 classrooms and 45 health facilities flattened. This single event alone also caused more than \$3 billion damage to the economies of the 3 countries¹⁰. These costings relate to physical damage caused by high impact climate events, but it is impossible to calculate the cost of secondary impacts such as physical and emotional well-being, food and water scarcity, and the spread of mosquito-borne and water-borne disease, displacement, migration and so on caused by such events.

The systemic weaknesses in public health systems exposed by the pandemic are mirrored in the meteorological sector in Africa. The continent is characterised by extremely low levels of investment in weather and climate observation infrastructure, limited capacities to analyse and interpret existing climate information, and even more limited uptake and use of climate information in policy and decision making. According to the World Bank¹¹, only 10 out of 54 African countries offer adequate meteorological services, and fewer than 300 of its weather stations meet the World Meteorological Organisation's observation standards¹². The Pan African component of the Weather and Climate Information Services (WISer) initiative implemented by the African Climate Policy Centre¹³ is working to support the development of a policy and legislative environment which is conducive for increased investments in weather and climate information services across the continent in order to stimulate uptake and use of CIS. A few other initiatives are similarly focused in different countries. However, what is required, as demonstrated by the Covid-19 response to inadequate funding for public health systems, is a massive injection of resources into the national meteorological and hydrological services across the continent in line with the scale of the climate threat to all sectors of the continents economies.

Suggestions that we cannot afford to address climate change, biodiversity loss and economic crises at the same time represents a false choice, both crises must be addressed at the same time.

Like Covid-19, climate change will eviscerate economies. The direct economic impacts from climate change responses to the continent are underlined by the IPCC's 1.5°C Report which projects that global model pathways for limiting global warming to 1.5°C would involve annual average investment needs in the energy system of around US\$ 2.4 trillion, representing about 2.5% of the world GDP, between 2016 and 2035. According to the Africa Renewable Energy Initiative (AREI), the African continent requires 300GW by 2030 in order to address only the energy access challenges.

Vulnerability to climate change is globally generalised and locally specific. This is to say that while everyone is vulnerable to the impacts of climate change, developing countries are much more vulnerable because of the structural and historical factors which restrict their abilities to absorb the costs of climate related events such as droughts, floods and heatwaves, as well as to adapt their economies to operate efficiently and sustainably in a changing climate. They also have less ability to take advantage of the opportunities of responding to climate change – such as investment in clean renewable energy, climate proofing infrastructure, or adopting smart agriculture options – without external assistance. It is estimated that Covid-19 will cost the world economy up to 5% of GDP. Climate impacts in Africa are already costing most of the continent's economies

⁹ African Climate Policy centre, April 2019.

¹⁰ Building Back Better Workshop, October 2019.

¹¹ The World bank 2016. Modernizing Meteorological Services to Build Climate Resilience Across Africa.

<https://www.worldbank.org/en/news/feature/2016/11/10/modernizing-meteorological-services-to-build-climate-resilience-across-africa>

¹² <https://www.scidev.net/global/data/supported-content/africa-s-20-000-weather-station-plan>.

¹³ <https://www.uneca.org/wiser/pages/about-wiser>

between 3% and 5% of GDP annually¹⁴, with some incurring losses of up to 10% of GDP. Thus, quite clearly, climate change already poses an even greater risk to lives, livelihoods and ecosystems than the Covid – 19 pandemic thus far. Yet the response to climate change has by and large been lacklustre. How are we to understand these differences, and what is to be done to ensure that climate change receives the urgency it deserves?

The Covid – 19 pandemic has demonstrated yet again that infectious diseases spread rapidly across national borders, and that they threaten everyone. The WHO led response has also emphasized the necessity of international collaboration and organization in order to block the spread of the virus. While nations are mobilizing their own resources to fight the pandemic within their own borders, this is being done within the context of scientifically proven and globally prescribed measures. There are also urgent efforts to mobilize resources to assist the more vulnerable developing countries. Similarly, climate change is a global challenge emanating from the pollution of the atmosphere, a global commons. The climate response must therefore be organized internationally and collaboratively if it is to be effective. Global problems require global solutions. This is not new. The UNFCCC and its treaties are global attempts at resolving the climate crisis. But the implementation of these solutions has been grossly inadequate. GHG emissions have been increasing every year, despite commitments to mitigate by every signatory to the Paris Agreement.

Global warming

Since the coming into force of the United Nations Convention on Climate Change (UNFCCC) in 1992, Greenhouse Gas (GHG) emissions have been on a continuous upward trajectory, save for a brief lull after the 2008 financial crisis. Efforts to give effect to the UNFCCC have seen a plethora of climate change laws and regulations, mechanisms and provisions, but these have been characterised by general agreement at the global negotiation level, and little effect on GHG emissions. In fact, between 2011 and 2015, GHG emissions grew by more than 2 parts per million (and spiked to an unprecedented 3.05 parts per million in 2015).¹⁵ There are multiple reasons for the ineffectiveness of the UNFCCC, but chief among these is the lack of political will.

The Paris Agreement, concluded in 2015, is the principal treaty which defines how the parties will fight global warming. It has three main objectives:

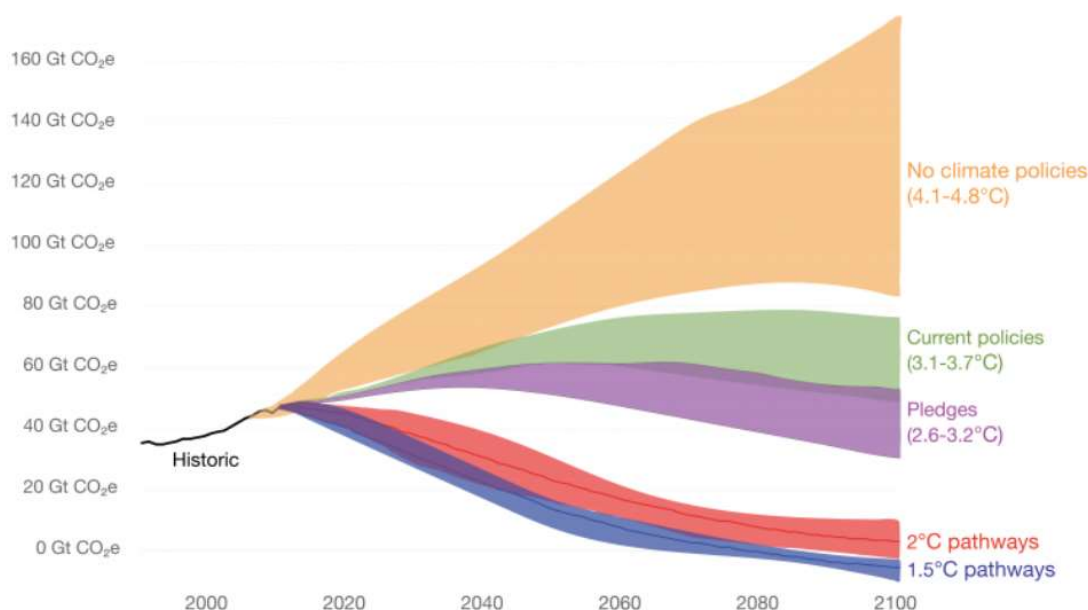
- (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

¹⁴ UNECA, African Climate Policy Centre

¹⁵ Unprecedented Spike in CO2 Levels in 2015 <https://www.climatecentral.org/news/unprecedented-spike-co2-levels-2015-20125>

Global greenhouse gas emissions scenarios

Potential future emissions pathways of global greenhouse gas emissions (measured in gigatonnes of carbon dioxide equivalents) in the case of no climate policies, current implemented policies, national pledges within the Paris Agreement, and 2°C and 1.5°C consistent pathways. High, median and low pathways represent ranges for a given scenario. Temperature figures represent the estimated average global temperature increase from pre-industrial, by 2100.



Unlike its predecessor the Kyoto Protocol which recognised historical responsibilities of nations for cumulative GHG emissions in the atmosphere through the principle of ‘common but differentiated responsibility’ (the polluter pays principle), the Paris Agreement is pivoted on the principle of ‘enlightened self-interest’. This principle holds that every nation will act in its enlightened self-interest to mitigate its own emissions, and will increase its mitigation actions as other nations also mitigate their emissions because it is in every nation’s enlightened self-interest to do so. The inadequacy of this principle is glaring. The Agreement is thus a voluntary agreement in which the enlightened self-interest is represented by Nationally Determined Contributions (NDCs), which are national statements of the actions that they will take to mitigate GHG emissions from a base year to 2030. The current emissions put us on a pathway to global warming of more than 3°C by the end of the century (see fig XX). What is required in order to avoid irreversible interference with the climate system is warming of not more than 2°C, and the Paris Agreement objective is to limit warming to 1.5°C if possible. The Global response to the Covid-19 has demonstrated the utility of multilateralism and the common interest of humanity.

According to the World Meteorological Organization (WMO), if the planet keeps warming at its current pace, the average global temperature could increase by 1.5°C in the next 10 years. This rise would worsen extreme weather events, and many of the dangerous effects of climate change might become irreversible. This year, 2020, was supposed to be a landmark year for the Paris Agreement. All parties to the agreement were to submit ‘ratcheted up’ NDCs which would see an increase in the ambition of nations to mitigate GHG emissions, and thus put us on the path to a climate resilient future. Covid – 19 has all but put paid to any hope of countries allocating significant budgetary resources towards reducing fossil fuel dependence and embarking on investments in green technologies.

The Global response to the Covid-19 has demonstrated the utility of multilateralism and the common interest of humanity

The Covid-19 response has been underpinned by science. The World Health Organization and other researchers and scientists have been continuously engaged in the evolution of policies on the Covid-19 response. The measures to control the spread of the virus have been determined by health scientists and accepted by politicians who have translated them into unprecedented drastic policies. In turn, the public has readily accepted these measures because they are understood to be scientifically grounded rather than politically driven. For example, a key study conducted by Imperial College London scholars helped change the course of the UK and US government's policy on COVID-19, possibly saving thousands of lives¹⁶. Similarly, on 23rd April 2020, while reviewing measures to control the spread of corona virus in South Africa, President Cyril Ramaphosa made it clear that we cannot allow the spread of Covid – 19 to outrun our ability to effectively address it. As such, his government would introduce a tiered system of response to the virus *in consultation with scientists and other experts* (emphasis added).

The Paris Agreement is pivoted on the principle of 'enlightened self-interest'...that every nation will act in its enlightened self-interest to mitigate its own emissions, and will increase its mitigation actions as other nations also mitigate theirs...The inadequacy of this principle is glaring.

In climate change, the climate science produced by the Intergovernmental Panel on Climate Change (on the basis of a massive body of research), the WMO, the UN Environment and numerous national and regional organizations is contested and ignored by policy and decision makers. For instance, the 21st UNFCCC Conference of Parties (COP 21) Commissioned the IPCC to carry out a study on the impacts of 1.5°C warming. The IPCC published the results of the study in October 2018, ahead of COP 24 in Poland. The report noted that we are off track towards achieving the temperature goal of the Paris Agreement, and that if we continued on this trajectory we are on course to reach at least 3°C warming by the end of the century. The report thus recommended that to achieve the target of limiting global warming to 1.5°C would need "rapid, far-reaching and unprecedented changes in all aspects of society". If warming was to be kept to 1.5°C this century, then emissions of carbon dioxide would have to be reduced by 45% by 2030, and reach net zero by 2050¹⁷. Such radical emissions cuts will require massive transformations in the global energy and transport systems, and the protection and restoration of natural ecosystems. While the report received widespread acclaim in social, political and scientific circles as the roadmap towards stabilizing the climate system, COP 24 failed to agree on endorsing and adopting the findings and key recommendations of the report. In a dramatic pushback on enhanced climate ambition, the COP instead 'welcomed the timely completion' of the report and 'invited Parties to make use' of its content.

The lesson of Covid-19, therefore is that science can in fact be translated into urgent policy decisions if there is sufficient political will.

The UNFCCC framework itself is tenuous, with countries choosing to withdraw completely from its treaties, or simply not implementing voluntary commitments. The lesson of Covid-19, therefore is that science can in fact be translated into urgent policy decisions if there is sufficient political will. For sure, climate science in Africa (just like health science) is weak and underfunded. Most of the available weather and climate information is based on observations from satellites and other regions, with very little investment in climate observation infrastructure, and even less investment in the capacities of national meteorological services.

¹⁶ Behind the Virus Report That Jarred the U.S. and the U.K. to Action.

<https://www.nytimes.com/2020/03/17/world/europe/coronavirus-imperial-college-johnson.html>

¹⁷ Global Warming of 1.5 °C: an IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

https://archive.ipcc.ch/report/sr15/index_background.shtml

Thus for development policy on the continent to be responsive to climate science, there has to be significant investment in CIS.¹⁸

The response to Covid-19 has been based on unprecedented government intervention, and almost universal social acceptance of the radical measures adopted by all but a few governments. Countries quick to respond have handled the virus more effectively. The *same approach* is needed for climate policies. A key difference with climate change is that while countries could close borders and stop international travel to contain the spread of the virus, borders cannot be closed to counter climate change. Global cooperation and action is therefore urgently required to manage the climate system. Covid – 19 has given rise to an uncontested recognition of the centrality of the state in managing the crisis. The state is also leading the definition of a post pandemic dispensation, and thus establishing its potential to play a decisive, transformative role in post covid-19 recovery and reconstruction. In Africa, the reconstitution and erosion of the state's role and weakening of its institutions over the past decades has resulted in huge concerns about the capacity of the continent to plan and implement an effective pandemic response strategy should infections start spreading at rates seen in such places as New York, Wuhan, Italy and Spain. The weak African state, and even weaker economies are thus causes of great precarity for the continent. Post pandemic green development planning and practice will require significant investments in capacity development of the public sector. In many ways, the 2030 agenda for sustainable development already acknowledges the centrality of the state in the achievement of the Sustainable Development Goals. Covid-19 has demonstrated the urgent need to build state capacities.

What is required to enable drastic climate actions is a new political economy based on cohesion, equality and environmental sustainability. The global climate response has not exhibited anything close to the required levels of cohesion and urgency. Despite the increasing reliability of climate information, political and administrative leaders have disassociated and engaged in policy paralysis. It is not even clear that political leaders have fully recognized the true extent of the climate emergency, and the very real possibility of irreversible damage within the decade. The political will to embark on carbon neutral trajectories, termed 'ambition' in climate change speak, has been woefully lacking.

The response to Covid-19 has been based on unprecedented government intervention, and almost universal social acceptance of the radical measures adopted by all but a few governments. Countries quick to respond have handled the virus more effectively. The *same approach* is needed for climate policies.

Covid-19 has given rise to an uncontested recognition of the centrality of the state in managing the crisis... Covid-19 has demonstrated the urgent need to build state capacities.

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_636

