Climate Justice in the Global South: Understanding the Environmental Legacy of Colonialism

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The negative effects of climate change in developing countries cannot be examined in isolation. The present-day 'developed' global north and the 'reeling-under-its-problems' global south have their roots in history. The recent past carries significant weight in terms of climate change: on the one hand, it makes developing countries more vulnerable to climate threats and, on the other hand, it reduces the possibilities of these countries to implement both mitigation and adaptation strategies. Years of colonial exploitation have left the vast majority of the population in developing countries without basic health, education and food infrastructures. They have also led to the loss of cultures and essential techniques that people used to live in harmony with nature. Thousands of indigenous people were removed from their land and pushed into poverty. As the global north developed, more liberal societies came into being for the colonisers, but at the same time the seeds of regressive social practices and corrupt, authoritarian governments were sown for the colonised. This now creates often insurmountable obstacles for developing countries to address the climate challenge effectively and equitably.

The global north has imposed on the global south a development model based on the unconditional exploitation of nature and human beings. Subsequently, rich global investors saw a great opportunity for profit in the vulnerability of the working class and of marginalized communities in developing countries. We cannot escape the misery that climate change will cause, and the most efficient way to fight it is through global collaboration. Colonial powers of yesterday and capitalists of today have benefitted, more or less directly, from unsustainable practices and exploitation, and therefore, the burden of mitigation and adaptation needs to be shared among the countries and communities responsible for inflicting nature's fury on the blameless victims who now have limited resources to address climate threats.

Introduction

Climate change is the most daunting challenge for the present generation, and yet humanity is still reckoning its devastating impacts (Palmer and Stevens 2019). The most obvious consequence of a warmer planet will be the rise in extreme weather events, evident over the past few years. The word apocalypse, which is often associated with an out-of-control climate change, originates in the Greek word 'apocalypsis', which means revelation (Diaz 2011). Disasters tend to unfold in a way that they peel the glossy surface of the society and reveal it, its institutions, its values and cracks in society (Diaz 2011). As a former secretary-general of the International Red Cross and Red Crescent Movement once noted: '[I] n many cases, nature's contribution to "natural" disasters is simply to expose the effects of deeper, structural causes' (Jackson 2005).

The Covid-19 pandemic gave a clear example of how severe social crises can have very asymmetrical effects, both at the national and the global level, i.e., the Covid-19 pandemic can work as a template to understand how unprepared humanity is to deal with the climate crisis. According to Oxfam's (2021, 9–10) inequality report, inequality is set to deepen in almost every country, the first time such a universal increase in inequality has happened since

record-keeping began. Covid-19 will also likely increase gender inequality, as the pandemic hit women harder than men in economic terms. Given current economic contingencies, it will take the world's poorest almost a decade to recover from the damages brought by the Covid-19 pandemic. In contrast, the world's richest 1,000 billionaires took just nine months to recover. Moreover, in Brazil and in the United States (US), Latinx and Black people were more likely to die due to Covid-19 than white people.

Covid-19 provides a clear demonstration, moreover, of the failure of one-size- fits-all solutions and of the challenges faced by the global south in mitigating and adapting to global crises. For instance, as many countries did, India imposed a nationwide lockdown, resulting in a huge exodus of migrant workers from tier-one cities to villages (Paliath 2021). So bright was India's shining story that even the government was blind towards the potential issues that key engineers of this economic system could face. It was arguably the biggest humanitarian crisis that independent India had ever seen. Similarly, the pandemic led to school closures in 180 countries. While children in the poorest countries were deprived of schooling for four months, children in the developed countries, where there is better access to the internet and to online learning, were only kept home for six weeks, on average (Oxfam 2021,15).

In sum, the Covid-19 pandemic has acted as a litmus test for the resilience of different societies to global and asymmetrical crises. Climate change, moreover, risks unleashing even more epidemics, in addition to extreme weather events, further exacerbating existing inequalities related to gender, race, ethnicity and nationality (T.H. Chan School of Public Health 2021). Covid-19 exposed how grossly unequal our world is. The global fault lines have been systematically built over centuries. Economic might translated into a political system that favoured the rich and incentivized further human and natural exploitation (Oxfam 2021, 8).

Social development is the key to climate change mitigation and adaptation (World Bank 2021c, 3). The Covid-19 pandemic shows that the developed world is better prepared and can adapt better in the face of a pandemic or natural crisis. However, 'climate change' is not a very popular expression in developing countries like India (Soni 2020). One among several reasons for this unpopularity is that there are already so many pressing development challenges on the table. Yet both climate mitigation and adaptation processes are veiled under the same issues that the countries of the global south have set out to resolve (World Bank 2021c, 3). For instance, when scientists work together to figure out the most effective climate solutions, financially and environmentally, increased education for young girls often features in the top ten solutions along with energy transition. Similarly, guaranteeing indigenous peoples' legal rights to their land is a potent climate mitigation solution (Drawdown 2021). Key adaptation measures against climate change include building up basic health and school infrastructures. The Covid-19 pandemic also shed light on the necessity of scientific temperament in fighting against natural odds (Matta 2020). Essential ecosystems and economic systems need to be built so that the climate crisis does not worsen existing inequality.

Developing countries are dealing with entrenched and severe social problems like patriarchy, superstition, religious extremism, authoritarian and corrupt governments and exploitative capitalism. All of these issues distract from the climate crisis and a just energy transition. Amidst the above-mentioned social challenges, developing countries are grossly underprepared to fight climate change. While the template of development, responsible for ecological destruction, has been used and provided by the global north, the global south was exploited according to the same template in the pursuit of economic development until only recently. For instance, when the British left India in 1947, the literacy rate in India was 16%, with the literacy rate amongst the Indian female population being 8% (Tharoor 2016, 227). Moreover, the average life expectancy amongst the Indian population was 27 years (Tharoor 2016, 264). India had no domestic industry, and 90% of the Indian population lived below the poverty line. It took India 70 years to bring the literacy rate to 72% and pull 280 million people out of poverty (Tharoor 2016, 264).

The legacy of colonialism not only continues to exacerbate the social and economic impacts of climate change and of global threats more broadly, but it also affects the adaptation and mitigation strategies that are available in the global south. From a climate change perspective, we need to work on two fronts: reducing social injustice and abating greenhouse gas emissions (Voskoboynik 2018, 173). Both fronts ask for a reexamination of current social and economic practices and for compensation for historical wrongs. As Audre Lorde wrote: '[T]he master's tools will never dismantle the master's house'.

This chapter explores the history of colonialism and how it was responsible for establishing current structures of global power and expediting the process of climate change. Moreover, it analyses how, in most cases, colonialism introduced a capitalist organisation of society that benefitted only a few while robbing the largest part of the population's access to basic goods. This now creates significant obstacles for developing countries in adapting to climate change.

1. The History of Development and Underdevelopment

While the western part of the world was moving towards modernity, it prevented the global south from living in harmony with nature. Colonialism was a form of subjugation: it destroyed local knowledge and inflicted violence through cultural denial, exploitation of natural resources and political oppression (Apter 1991).

Nations were not turned into colonies all at once. Colonialism was a gradual project that started with empires and in some cases companies seeking territories from which they could extract natural resources, raw materials and labour, all out of a desire for wealth (Voskoboynik 2018, 37). Humans tend to be more empathetic towards the people who look like them. Similarly, we care more about our land and our environment than the land or environments of others (Voskoboynik 2018, 37). Such moral dissociation with people and places of different origins played a central role in colonialism insofar as it allowed colonial powers to give little importance to the people, cultures and lands of their colonies. Wealth meant power. Everything started to be looked at in terms of profits. This led to large-scale exploitation, which in turn led to cash crops replacing food crops, monoculture replacing multi-culture and slaves replacing free labour (Voskoboynik 2018, 38).

It is crucial to go through the colonial era to understand how we reached the current levels of atmospheric CO2 concentration and thus also the current global warming of 1.1°C. Weizman and Sheikh (2015) once wrote: '[T]he current acceleration of climate change is not only an unintentional consequence of industrialization. The climate has always been a project for colonial powers, which have continually acted to engineer it'. The colonisers' main goal was to acquire wealth and power, and they intended to acquire them by acquiring crucial commodities like minerals, metals, crops and labourers (Crate 2009, 190). Colonisers sought to make their economy grow and strengthen their political power through industrialisation, and they asked their colonies to provide energy supplies, food, raw materials, labour and even to contribute to increasing the consumer demand of western products. Gold and silver became the most sought-after commodities for the colonisers (Brown 2012). Around 100 million kilogrammes (kg) of silver were mined in the world between the sixteenth and nineteenth centuries. Gradually, attention shifted from gold and silver to plant-based commodities like cotton, sugar, spices and coffee (Voskoboynik 2018, 38).

As colonies grew around the world, so did the agricultural system based on monoculture (Montgomery 2012). In India, the British completely reorganised the agricultural system to suit the international export market. Low-scale food crop systems were replaced by organised cash crops, such as tea and cotton. Other empires followed the same trend in their colonies (Voskoboynik 2018, 38). Cotton regimes were installed by the Portuguese empire across Mozambican, Brazilian and Angolan colonies. With changes in the pattern of agriculture, water management techniques also changed. Water started being managed by the state, which used advanced engineering techniques, and communal management of water was stalled (Adams 2003, 35). Traditional practices that communities had learnt over the years were now considered ineffective, outdated and even damaging (Voskoboynik 2018, 39). Extensive farming of cash crops, coupled with deforestation, exhausted the soil and made most of the land infertile. Barren patches of land also became breeding grounds for mosquitoes carrying yellow fever and malaria. Consequently, in the Caribbean and Brazil, epidemics killed vast sections of the population (Voskoboynik 2018, 40).

As pointed out by the historian Corey Ross (2014, 49):

One of the recurring themes in the history of plantations is the perennial cycle of boom and bust. Whether the crop is sugar, tobacco, or cotton, the basic pattern is often the same: an initial frenzy of clearing and planting is followed by either a precipitous collapse of production or a gradual process of creeping decline before eventually ending in soil exhaustion, abandonment, and relocation elsewhere.

Colonialism led to mass destruction that had never been seen before. Colonies and their people were looked at as mere resources that colonisers could use to foster economic growth in their home countries. No mercy was shown as people and resources were exploited. Wealth was taxed through an unfair and rigorous system that overburdened the poor while making the rich even richer. Any voice of dissent was eliminated (Tharoor 2016, 47).

As the land of the people was exploited, it soon became infertile. Colonisers moved from one patch of land to another, leaving behind several barren patches. There was enormous-scale destruction. Ignorance and dissociation led to large-scale violence and destruction and consequently started the Anthropocene (Voskoboynik 2018, 41). When colonies regained self- determination, they had to rebuild from scratch. A chosen few gained an opportunity for education and developed scientific and liberal temperaments to fight retrograde traditions Colonialism eventually led to an economically prosperous world but one with a high level of inequality. Also, such a level of economic prosperity was only made possible through the exploitation of natural resources and people.

Apart from agriculture, gold and silver mining across colonies destroyed local terrains. For instance, extensive silver mining in the Andes and the Sierra Madre mountain ranges in South America and Mexico irreparably damaged local ecosystems. Colonisers undertook extensive deforestation to make way for fuel furnaces. This practice resulted in a significant decline in soil fertility, also triggering soil erosion and flooding (Gioda et al. 2002; Moore 2007). British merchants cleared India's Malabar Coast of teak forests. Then, they moved to Burma to clear the Tenasserim Forest and finished their task in just two decades (Ponting 2007). Within a few years, Marquesas Islands, Fiji and Hawaii were cleared of their sandalwood forests (Adams 2003, 35).

Extensive deforestation led to Java losing half of its forest in just one century (Boomgaard 1996). Between 1895–1925, agricultural expansion and logging led to Madagascar losing 70% of its primary forests (Jarosz 1993). Such extensive deforestation also led to wildlife losing their natural habitats, which eventually caused the extinction of several species. Moreover, demand for fine furs in the elite European circle led to overhunting in Siberia and the Americas. Consequently, the American Fur Company founder, John Astor, became the first American multimillionaire in history (Richards 2003). Overhunting also reached marine life (Roberts 2007).

Environmental damage and species extinction were accompanied by ethnocide. People were subjugated, exploited and massacred to make way for industrial production. Some of the tribes of people who were eradicated are the Beothuk, Charrúa, Guanches and Lucayas (Voskoboynik 2018). Aimé Césaire (2018), a Martinican author, notes that between 'colonizer and colonized, there is room only for forced labour, intimidation, pressure, the police, taxation, theft, rape, compulsory crops, contempt, mistrust, arrogance, self-complacency, swinishness, brainless elites, degraded masses.' Human slavery flourished in the US and Europe, which provided enormous benefits to these regions.

Lack of sanitation and malnutrition, along with the presence of exploitation, cramped spaces and enslavement, compromised the health of large share of the native population, which had become more vulnerable to germs and diseases (McBrian 2016). It led to populations being wiped out by diseases they had no immunity against. It resulted in a disastrous decimation of life. In the Americas, enslavement, famine, overwork, wards and epidemic diseases brought about the decimation of nine-tenths of the native population (McNeill 2010). Demographic research shows the level of compromised immunity in the indigenous population (Bacci 2008). The British empire forced India to export more food than it could, which led to one of the worst famines in the country's history. Tens of millions of people vanished in India, and if their bodies were laid head to toe, it would cover the entire area of England 85 times over. (Hickel 2015). In Congo, 10 million people died while they were deployed for the extraction of ivory and rubber (Hochschild 1999).

Colonialism remains one of the most destructive phases of human history. Along with the destruction of native people, cultures and traditions, it stole away the idea of different understandings of the world. People in different regions lived differently with nature. However, in the quest of gaining and accumulating wealth and power in just a few corridors of the world, the rest of the planet was forced to engage only in those activities that would help in the colonial pursuits. Numerous ecological traditions, languages, identities, cosmologies and possibilities vanished.

The morally tainted benefits of colonialism formed the basis on which the wealth of the colonial power rests. Precious metals like gold and silver made European merchants and banks extremely rich. The wealth accumulated from plantations, mining and slave trading formed the backbone of colonial economies and made the Industrial Revolution a success story (Hickel 2017). People from the colonies also became consumers of the colonial powers, i.e., they were obliged to purchase products from European industries. As a result, in the late-nineteenth century, more than 50% of the revenues of the British government came from its colonies (Inikori 2002).

Consequently, the world economy was reconfigured by colonialism. In its pre- colonial era, the Indian economy accounted for the 27% of the global economy. It was reduced to 3% when the British left. Similarly, the Chinese economy accounted for the 35% of the global economy, which eventually was reduced to 7%. A completely different trend emerged in Europe. Europe's contribution to the global economy increased from 20% to 70% in the same period. The tables turned in terms of development too. In the eighteenth century, income inequality around the world was minimal. There is evidence that Europeans had lower average standards of living than the rest of the world (Davis 2000).

Around the eighteenth century, the districts around the Bay of Bengal and the Yangtze Delta were manufacturing hubs with artisan workshops. These workshops could easily compete with the workshops of Florence. Prasannan Parthasarathi, an Indian historian, argues that 'there is compelling evidence that South Indian labourers had higher earnings than their British counterparts in the 18th century and lived lives of greater financial security'. In the nineteenth century, North Africa and Latin American people survived on higher calories than an average European (Montgomery 2012). But decades of destruction and exploitation changed the global picture.

There have been attempts to downplay the adverse effects of the era of colonialism. However, the history of climate change would be grossly incomplete without connecting the dots. The era of globally divergent economic growth is the result of extensive destruction of ecosystems and suppression and exploitation of communities, which consequently resulted in a significant increase in emissions. For instance, between 1835 and 1885, land-use change in the US proved to be the most significant contributor to global CO2 emissions (Brooke 2014, 482).

Colonialism transformed the way economic growth was perceived, and it altered the scale, degree and rate of ecological destruction. In Medieval Picardy, it took 200 years to deforest 12,000 hectares of land. However, in 1650, during the Brazilian sugar boom, it only took a year for an equivalent amount land to be deforested (Hickel 2017). Extensive alterations in marine and terrestrial ecosystems were normalised by colonial powers and justified only on the basis of economic growth. Political ecologist Jason Moore (2017) argues that 'the rise of capitalist civilization after 1450, with its audacious strategies of global conquest, endless commodification, and relentless rationalization', marked 'a turning point in the history of humanity's relationship with the rest of nature, greater than any watershed since the rise of agriculture and the first cities'.

2. Colonial Climate Legacies

When formal colonialism largely came to an end in the nineteenth and twentieth centuries, the world had already been divided into developed and developing countries. Colonialism, moreover, defined the very concept of development; a concept that largely ignored the social and environmental externalities created by the development of the western world. As colonies gained their freedom, they kept on living under the legacy of colonialism. Several newly formed nation-states followed the colonial development track and continued to treat ecosystems as mere instruments for economic growth. The programmes were still designed to evict and displace large communities under the banners of development.

For example, India gained independence in 1947. Between 1947–2000, 24 million Adivasis were evicted from their land in the name of development projects. The construction of Narmada Dam alone displaced close to 100,000 people. Vast areas of the Amazon Rainforest have been destroyed by military and non-military governments of Brazil. Hosni Mubarak's government in Egypt transferred control of lands from small farmers to big landowners and justified this in the name of development (Voskoboynik 2018, 61).

Many former colonies started large deforestation projects. Over two decades, between 1960–1980, timber exports in Indonesia increased 200-fold. In Côte d'Ivoire, extensive deforestation resulted in just one-fortieth of the forest remaining today. Côte d'Ivoire increased its timber exports from 42,000 tonnes to 1.6 million tonnes between 1913–1980 (Ponting 2007, 189). Almost 50% of forests were abated in the global south between 1900–2010. The colonial-based model of development led to these results, and people who resisted it were faced with extrajudicial violence and extreme repression (Voskoboynik 2018, 61). Even today, hundreds of community leaders, environmental and social activists are frequently killed in the world because they resist large-scale economic projects that favour a tiny minority. In Honduras alone, at least 124 land and environmental activists were killed between 2010–2016 (Spanne 2016).

Any story remains incomplete if we simply focus on the winners and neglect the losers. Even though the full impact of colonialism is still to be reckoned in its fullness, it is evident that it altered cultures, philosophies, landscapes and international relations, resulting in the exploitative economic model that thrives on natural and human domination. Colonialism also led to the disappearance of ancient and important cultural traditions that could have helped to contain the devastation of nature that is at the root of climate change.

The world is more than 1.1°C warmer than pre-industrial levels, and human activities have caused this warming (Tollefson 2021). The year 2021 has already seen a series of extreme climate events (Plimmer 2021). These events are the result of decades of greenhouse gas emissions. We are witnessing the warming caused by the exploitative practices of the nineteenth and twentieth centuries. According to the IPCC's Sixth Assessment Report, if we continue on the present trajectory, the world will be 1.5°C warmer on average by mid-century than it was in pre-industrial times (IPCC 2021). A warmer world implies that we cannot escape the misery that climate change will cause. However, where have these human activities, which have been mainly considered essential and indispensable, brought us?

To better understand the link between human development, on the one hand, and colonial exploitation of nature and human beings, on the other, we need to focus on some data. Historical emissions have mainly been unequal across the globe. Roughly 40% of the world's emission debt is carried by US (Matthews 2016). However, there are 'carbon creditor' states like Bangladesh, India, China and Nepal, which have a larger share of the global population compared to their share of emissions (Matthews 2016).

The effect of colonialism on emissions is evident in the fact that, in 1825, Britain was responsible for 80% of global carbon emissions from fossil fuels (Malm 2005). The wealthiest countries in the world are responsible for 80% of historical global emissions, and yet their population share is just 20%. Until 2000, the US was responsible for 27.6% of historical emissions. In contrast, Brazil was responsible for 0.9%, and Nigeria was responsible for 0.2% (Malm 2016). The per capita emissions of El Salvador are 45-times lower than the average emissions of a Qatari national and 15-times lower than the average emission of an American citizen (World Bank 2021a).

The inequity that the global economic system has caused is also evident from the emissions data of private corporations (see also Grasso in this volume). Since 1750, two-thirds of all emissions have been caused by just 90 corporations (Heede 2014). Half of these emissions occurred after 1988. Between 1751–2010, ExxonMobil has been responsible for 3.22% of all emissions (Heede 2014). The point to be stressed here is that by 1988, humanity had enough evidence to show that we were altering the earth system (Heede 2014).

According to Oxfam, 50% of global emissions are caused by just 10% of the world population (Gore 2015). At the same time, the poorest 50% of the world population is responsible for just 10% of global emissions. Historically, the wealthiest 1% of the world population has emitted 175 times more greenhouse gases than the poorest 10% (Voskoboynik 2018, 115). The richest 1% of Saudi Arabians have a carbon footprint 2,000-times higher than the poorest Malians (Malm 2016). Inequality aggravates emissions (Kusumawardani and Dewi 2020). It is evident that higher inequality within a country leads to higher emissions (Dorling 2017). Inequality in society is usually the result of the unjust accumulation of wealth and income by a few and of the dearth of opportunities for the many. The wealthiest people have excess money to spend on non-essentials, whereas many others struggle for basics. Therefore, the wealthiest people in the world use more energy, consume more goods, fly more and heat larger

homes. The 20% of the global human population consumes 80% of the world's resources (Activesustainability 2021).

The accumulation of wealth and power in the hands of the few means that those most responsible for climate change are likely to adapt to changing conditions and, therefore, are more likely to remain unaffected. Poor people, by contrast, who contributed the least to ecological destruction will most likely be unable to adapt and endure the most substantial impacts and pay the highest costs. Global capitalism is normally perceived as the only means for economic growth and social development. Yet, 30 years ago, over 50 nations were more prosperous than they are today (Matthews 2016). The number of Europeans with severe material deprivation increased from 7 million to 50 million between 2009–2013 (Malm 2016). In the last 10 years, the number of people living in extreme poverty has tripled in Italy (Malm 2016). In recent decades, income inequality has increased in almost every country (World Bank 2021b).

Global inequality is evident because today, five (male) persons control as much wealth as 50% of the global population (Heede 2014, 229–241). About 70% of global income goes to the wealthiest 20% of the world's population, while the poorest 20% of the global population receive just 2% of global income (Starr 2016). Approximately 73% of India's new wealth accrues to the top 1% of the population (Heede 2014). Bill Gates's net worth is greater than the total gross domestic product (GDP) of Haiti over the past 30 years, while a single American family, the Waltons, own more wealth than the US's poorest 42%. There have been multiple studies showing a significant relationship between social wellbeing and equality (Wilkinson and Pickett 2010). Societies with less inequality have lower crime rates, less violence, less divorce, less addiction, healthier populations and lower infant mortality rates (Dorling 2017).

Global prosperity is generally measured in terms of GDP. Neoliberal economics suggests that GDP should keep increasing, which would eventually lead to a more prosperous world. However, after years of sustained global GDP growth, the present-day world is more unequal than it ever has been (OECD 2021). Years of environmental and human exploitation have resulted in the accumulation of power and wealth in the hands of few. Decades of exploitation of the global south have resulted in vulnerable social and environmental structures. Madagascar, for example, is on the verge of facing the first climate change-induced famine, and the inhabitants of the country who will suffer the most have contributed almost nothing to climate change (Harding 2021). Crises like this risk undermining the human development goals achieved so far in developing countries. For instance, climate change-induced drought increases the rate of human trafficking in India (Dutta 2020). School dropout rates increase, and gender inequality deepens when families face financial crises induced by climate events (Sharma 2018).

There is enough evidence to show that local communities have always known the techniques to live in harmony with nature. We also know very well that local communities have developed expert knowledge about their ecosystems and have learnt to thrive in them (Voskoboynik 2018, 82). For instance, the Moru community in Sudan has mastered techniques like crop rotation, waste recycling and soil classification to maintain the fertility of the soil. The Chepang community of the Himalayas maintain the fertility of the soil by practising 'Khoriya', a crop rotation technique. Similarly, there are endless examples of expert knowledge of local ecosystems that people have built over the years (Prudencio 1993). The greed to derive wealth from every human activity has resulted in the destruction of precious traditional knowledge.

The social cost of carbon in the global south is higher than in the global north (Brock 2012). The key reason is that societies in the global south are still reeling under the historical havoc caused by the countries which today are developed. Climate change is a time-bound problem, and the emergency has already arrived. Countries in the global south do not have time to evolve into societies with fewer infrastructural and social fault lines that would withstand the destruction caused by climate change.

Conclusions

During the current climate emergency, millions of people risk losing their lives, homes and identities. In an unequal world, one life is more valuable than another. While different countries will adopt different strategies for coping with various facets of climate change, it is essential to implement adaptation and mitigation strategies that are inclusive.

The poor have been systematically left behind by the post-colonial capitalist economic system. Moreover, the wealth created could be directly linked to ecological destruction. Oxfam's report on inequality post-Covid-19 suggests that the Covid-19 pandemic undid the progress made in terms of eradicating poverty and inequality. The world will likely experience several such crises in the coming future that will leave the most vulnerable people worse off. Wealthy countries and individuals who have accumulated wealth from the exploitation share a moral obligation to restore communities globally and help build a more resilient world against climate change.

References

Active sustainability. 2021 "Natural Resources Deficit". https://www. activesustainability.com/environment/natural-resources-deficit/

Adams, William M. 2003. "Nature And the Colonial Mind". In *Decarbonising Nature*, edited by William (Bill) Adams and Martin Mulligan, 2–35. London: Routledge.

Apter, Andrew. 1991. "MUDIMBE, V. Y., The Invention Of Africa: Gnosis, Philosophy, And The Order Of Knowledge, , 241 Pp., 0 253 33126 9". *Journal Of Religion In Africa*, 21 (2): 172–174. https://doi. org/10.1163/157006691×00285

Bacci, Massima Livi. 2008. *Conquest: The Destruction Of The American Indios*. Polity.

Boomgaard, Peter. 1996. "Environmental Impact Of The European Presence In Southeast Asia, 17Th-19Th Centuries". *Island and Empires* 1 (28): 22–35.

Brock, Hannah. 2012. "Climate Change: Drivers Of Insecurity And The Global South." https://reliefweb.int/report/world/climate-change-drivers-insecurity- and-global-south

Brooke, John L. 2014. *Climate Change And The Course Of Global History*. Cambridge: Cambridge University Press.

Brown, Kendall W. 2012. "A History Of Mining In Latin America From The Colonial Era To The Presentby Kendall W. Brown". *The Latin Americanist* 56(3): 104–107. https://doi.org/10.1111/j.1557-203x.2012.01162_3.x Cesaire, Aime. 2018. *Discourse on Colonialism*. AAKAR Books.

Crate, Susan. 2009. "Viliui Sakha Of Subartic Russia And Their Struggle For Environmental Justice". In *Environmental Justice And Sustainability In The Former Soviet Union* , edited by Julian Agyeman and Yelena Ogneva- Himmelberger. Cambridge: MIT Press.

Davis, Mike. 2000. *The Origin Of The Third World*. Antipode.

Diaz, Junot. 2011. "Apocalypse: What Disasters Reveal". *Boston Review*. https://bostonreview.net/articles/junot-diaz-apocalypse-haiti-earthquake/

Dorling, Danny. 2017. *The Equality Effect*. New Internationalist, 504. https:// newint.org/features/2017/07/01/equality-effect

Dutta, Soumik. 2020. "In India, Climate Change Is Increasing Refugees & Human Trafficking – India". Inter Press Service, July 9. http://www.ipsnews. net/2020/07/india-climate-change-increasing-refugees-human-trafficking/?utm_source=rss&utm_medium=rss&utm_campaign=india-climate- change-increasing-refugees-human-trafficking

Gioda, Alain, Carlos Serrano, and Ana Forenza. 2002. "Dam collapses in the world : a new estimation of the Potosi disaster (1626, Bolivia)". *La Houille Blanche* 88 (4–5): 165–170.

Gore, Timothy. 2015. *Extreme Carbon Inequality*. Oxfam. https://www-cdn. oxfam.org/s3fs-public/file_attachments/mb-extreme-carbon-inequality- 021215-en.pdf

Harding, Adrew. 2021. "Madagascar On The Brink Of Climate Change- Induced Famine". *BBC News*, August 25. https://www.bbc.com/news/world- africa-58303792

Harvard T.H. Chan School Of Public Health. 2021 "Coronavirus And Climate Change". *C-CHANGE* / https://www.hsph.harvard.edu/c-change/subtopics/ coronavirus-and-climate-change/

Heede, Richard. 2014. "Tracing Anthropogenic Carbon Dioxide And Methane Emissions To Fossil Fuel And Cement Producers, 1854–2010". *Climatic Change* 122 (1–2): 229-241.

Hickel, Jason. 2015. "Enough Of Aid – Let'S Talk Reparations". *The Guardian*. Nov 27. https://www.theguardian.com/global-development-professionals-

network/2015/nov/27/enough-of-aid-lets-talk-reparations Hickel, Jason. 2017. *The Divide*. William Heinemann.

Hochschild, Adam. 1999. *King Leopold's Ghost*. London: Papermac.

Inikori, J. E. 2002. *Africans And the Industrial Revolution In England*. Cambridge: Cambridge University Press.

IPCC. 2021. "Climate Change Widespread, Rapid, And Intensifying – IPCC". 2021. *Ipcc.Ch*. https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/

Jackson, Stephen. 2005. *Understanding Katrine; Perspectives From The Social Sciences*.

Jarosz, Lucy. 1993. "Defining and Explaining Tropical Deforestation". *Economic Geography* 69 (4): 366–379.

Kusumawardani, Deni, and Ajeng Kartiko Dewi. 2020. "The Effect Of Income Inequality On Carbon Dioxide Emissions: A Case Study Of Indonesia". *Heliyon* 6 (8): e04772. https://doi.org/10.1016/j.heliyon.2020. e04772

Malm, Andreas. 2005. *Searching For The Origins Of The Fossil Economy*. Vero Blogs.

Malm, Andreas. 2016. *Who Lit This Fire? Critical Historical Studies* 3 (2): 215–248. https://doi.org/10.1086/688347

Matta, Gagan. 2020. "Science Communication As A Preventative Tool In The COVID19 Pandemic".*Humanities And Social Sciences Communications* 7 (159): 1–14. https://doi.org/10.1057/s41599-020-00645-1

Matthews, H. Damon. 2016. "Quantifying Historical Carbon And Climate Debts Among Nations". *Nature Climate Change* 6 (1): 60–64. https://doi. org/10.1038/nclimate2774

McBrian, Justin. 2016. *Anthropocene Or Capitalocene?* Oakland: PM Press. McNeill, John Robert. 2010. *Mosquito Empires*. Cambridge University Press.

Montgomery, David R. 2012. *Dirt; The Erosion Of Civilisations*. University Of California Press.

Moore, Jason W. 2007. "Silver, Ecology And The Origins Of The Modern World, 1450–1640". In Rethinking Environmental History, edited by Alf Hornborg and J. R. McNeill.

Moore, Jason W. 2017. "The Capitalocene". *The Journal of Peasant Studies* 44 (3): 1–38. http://dx.doi.org/10.1080/03066150.2016.1235036

OECD. 2021 "Inequality – OECD". https://www.oecd.org/social/inequality.htm

Oxfam International. 2021. “The Inequality Virus | Oxfam International”. https://www.oxfam.org/en/research/inequality-virus

Paliath, Shreehari. 2021. “A Year After Exodus, No Reliable Data Or Policy On Migrant Workers”. *Indiaspend.Com*. https://www.indiaspend.com/ governance/migrant-workers-no-reliable-data-or-policy-737499

Palmer, Tim, and Bjorn Stevens. 2019. “The Scientific Challenge Of Understanding And Estimating Climate Change”. *Proceedings Of The National Academy Of Sciences* 116 (49): 24390–24395. https://doi. org/10.1073/pnas.1906691116

Plimmer, Joe. 2021. “Climate Crisis: 50 Photos Of Extreme Weather Around The World – In Pictures”. *The Guardian*. Jul 19, 2021. https://www. theguardian.com/world/gallery/2021/jul/19/climate-crisis-weather-around- world-in-pictures-wildfires-floods-winds

Ponting, Clive. 2007. *A New Green History Of The World: The Environment and the Collapse of Great Civilizations* . London: Penguin Books.

Project Drawdown. 2021. “Table Of Solutions | Project Drawdown”. https:// drawdown.org/solutions/table-of-solutions

Prudencio, Coffi Y. 1993. “Ring Management Of Soils And Crops In The West African Semi-Arid Tropics: The Case Of The Mossi Farming System In Burkina Faso”. *Agriculture, Ecosystems & Environment* 47 (3): 237–264. https://doi.org/10.1016/0167-8809(93)90125-9

Richards, John F. 2003. *The Unending Frontier*. Berkeley: University of California Press.

Roberts, Callum. 2007. *The Unnatural History Of The Sea*. London: Island Press.

Ross, Corey. 2014. “The Plantation Paradigm”. *Journal Of Global History* 9(1): 49–71.

Sharma, Amrit P. 2018. “School Dropout Rate Of Children In A Changing Climate”. https://www.researchgate.net/publication/348163575_SCHOOL_ DROPOUT_RATE_OF_CHILDREN_IN_A_CHANGING_CLIMATE

Soni, Paroma. 2020. “Why India Needs To See Climate Change As Urgent Political Issue”. *Downtoearth.Org.In*. https://www.downtoearth.org.in/blog/ climate-change/why-india-needs-to-see-climate-change-as-urgent-political-issue-69783

Spanne, Autumn. 2016. “Why Is Honduras The World’s Deadliest Country For Environmentalists?”. *The Guardian*, April 7. https://www.theguardian.com/ environment/2016/apr/07/honduras-environment-killing-human-rights-berta-caceres-flores-murder

Starr, Douglas. 2016. “Just 90 Companies Are To Blame For Most Climate Change, This ‘Carbon Accountant’ Says”. *Science*, August 25. https://doi. org/10.1126/science.aah7222

Tharoor, Shashi. 2016. *An Era Of Darkness The British Empire In India*. Aleph Book Company.

Tollefson, Jeff. 2021. “IPCC Climate Report: Earth Is Warmer Than It’s Been In 125,000 Years”. *Nature* 596 (7871): 171–172. https://doi.org/10.1038/ d41586-021-02179-1

Voskoboynik, Daniel Macmillen. 2018. *The Memory We Could Be*. New Society Publishers.

Weizmen, Eyal, and Fazal Sheikh. 2015. “Colonization As Climate Change In The Negev Desert”. *Steidl*.

https://steidl.de/Books/The-Conflict-Shoreline- Colonization-as-Climate-Change-in-the-Negev-Desert-0821232758.html

Wilkinson, Richard G, and Kate Pickett. 2010. *The Spirit Level*. Penguin.

World Bank. 2021a. "CO2 Emissions (Metric Tons Per Capita) | Data". https://data.worldbank.org/indicator/EN.ATM.CO2E.PC

World Bank. 2021b. "Poverty and Shared Prosperity 2020: Reversals Of Fortune". https://www.worldbank.org/en/publication/poverty-and-shared- prosperity .

World Bank. 2021c."Social Dimensions of Climate Change". https://www. worldbank.org/en/topic/social-dimensions-of-climate-change

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