



# The Mpumalanga Highveld Air Pollution Crisis: A South African Reparations Framework for Environmental State–Corporate Harm

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## Abstract

The Highveld region in South Africa's Mpumalanga province has a dense concentration of coal mines and coal-fired power stations. As a result, the area experiences severe levels of air pollution. Despite the government's obligation, little has been done to remedy the harm experienced by the environment and people in the Highveld. The complexity of the relationship between the state and corporations contributes to the government's reluctance to hold mining companies accountable. Obtaining remedies through courts has also yielded limited success. We, therefore, make a case for the creation of African environmental reparations and submit that the Mpumalanga Highveld region evidences the need for such reparations. African environmental reparations must be guided by the principles of Ubuntu, bolstered by the *African Charter on Human and Peoples' Rights*, and employ restorative justice. Only in this way can air pollution be properly acknowledged as a multifarious harm, and the balance, harmony and unity between people and the environment repaired.

**Keywords:** African environmental reparations; environmental state-corporate harms; restorative justice; environmental justice.

## Introduction

Thick smog will greet you when you drive on the South African N4 highway into the Mpumalanga Highveld region. If you arrive early in the morning to eMalahleni—a town whose name means 'the place of coal'—you will see thick clouds of hovering smoke. For as long as you stay in the town, you will sense the intense air pollution. You will not be the first, however, to notice the life-threatening air pollution levels. National and international groups have been denouncing the situation for years, but no satisfactory response or resolution has been found. eMalahleni's ecosystems and people continue to be devastated by air contamination.

Extensive research exists on the causes of air pollution in the area (Mathu and Chinomoa 2013; Gray 2019; Hallowes and Munnik 2016, 2017). Pollution harms predominantly poor, black communities that pay the price of heavy industrial coal mining. The state has the legal mandate to address the issue, yet little has been done to remedy the harm experienced by people and the environment within the Mpumalanga Highveld region (Gray 2019; Hallowes and Munnik 2016, 2017).

Plaintiffs and local inhabitants still await access to effective remedies for pollution. State-owned entities and private corporations are behind this instance of environmental harm. The deeply embedded business relationship between entities owned by the state and those that are privately owned, including transnational corporations, underpins these harms, lack of remedies, and the state's reluctance and resistance to holding corporations accountable.



In this article, we argue that there is a need for an African perspective on how environmental reparations might help to achieve justice for environmental harms, such as the air pollution crisis in the Mpumalanga Highveld region. We suggest that, although the concept of environmental reparations or ‘climate change reparations’ has gained traction globally, the African principle of Ubuntu and instruments such as the *African Charter on Human and Peoples Rights 1986* (referred here to as ‘African Charter’ or ‘the Charter’) can provide a framework in which Africa-contextualised restorative justice for the environment can be achieved.

### **Air Pollution in the Mpumalanga Highveld**

Environmental injustices in South Africa have a long and horrific history entwined with colonialism, apartheid, capitalism, and patriarchy (Humby 2013). Black people in South Africa remain disenfranchised politically and environmentally (Rolston 1992; Stull, Bell and Ncwadi 2016). To handle what the white electorate perceived as the ‘native problem’, colonialism was formalised into apartheid in 1948 (Stull, Bell and Ncwadi 2016), entrenching stratification along the lines of class, racial identity, and gender, to varying degrees.

Racial segregation and the subsequent oppression of black people resulted in land dispossession, amongst other outcomes, which was exacerbated by the *Native Land Act 1913* (South Africa). This Act divided the country’s territory between whites and blacks. It gave 87% of land to white people while confining the country’s larger black population to ‘Bantustans’ or ‘Native Reserves’ (Rolston 1992). Inadequate land, overcrowding, a labour shortage, and acute poverty characterised the so-called Bantustans (Rolston 1992). All of these issues related to black people being forced from their property and relocated to impoverished rural areas or crowded townships where they endured some of the worst environmental conditions. eMbalenhle, a township created in the 1970s to house black workers as labour for the chemical corporation, Sasol, is an example of such a township.

The term ‘environmental racism’ refers to the effects of policies and practices that environmentally disadvantage some people based on their race (Bullard 2015). Environmental apartheid, on the other hand, is defined by Stull, Bell and Ncwadi as ‘the deliberate use of the environment to marginalise racialised groups, as well as the subsequent consequences of that marginalisation’ (2016: 370). Environmental apartheid, therefore, encapsulates environmental racism (Stull, Bell and Ncwadi 2016) and the systematic entrenching of environmental injustice (Bullard 2015).

Environmental apartheid continues to inform the lived experiences of black South Africans, especially women, even though formal apartheid is no longer in force (Stull, Bell and Ncwadi 2016). Environmental injustices in South Africa are primarily driven by the oppression of black people and the intersectional impact of gendered and racial discrimination, particularly as it relates to the environment in which black women are forced to live (South African Human Rights Commission 2016). Indeed, poverty in South Africa is still heavily constituted along racial and gendered lines (Albertyn 2011). The inequality evident in the Mpumalanga province is, of course, an architectural design of colonial apartheid (Madlingozi 2007).

Mpumalanga is a province located in the north-eastern part of South Africa. Its Highveld region comprises several towns overburdened with 12 coal-fired power stations and at least 70 coal mines, plus smelters, a coal-to-oil refinery, and other heavy industry firms (*Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs (39724/2019)* [2022] ZAGPPHC 208) (South Africa). Mpumalanga produces approximately 83% of coal in South Africa (Gray 2019; Hallowes and Munnik 2017) and is also home to the chemical and energy company, Sasol’s coal-to-liquids refinery plant.

This concentration of heavy industries is responsible for the emission of sulphur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), oxides of nitrogen (NO<sub>x</sub>), particulate matter (PM), and mercury (Hg), which are the significant air pollutants in the region (Gray 2019). In 2019/2020, the Mpumalanga Highveld region was ranked Africa’s highest SO<sub>2</sub> emission hotspot (Dahiya et al. 2020; Gray 2019). State-owned power stations, such as Kriel, were found to be some of the region’s leading contributors to SO<sub>2</sub> emissions (Gray 2019). The impact of all this is that poor air quality leads to deterioration of the environment and people’s health and well-being. This includes increased premature deaths, heart and lung diseases, and cancer (Millar et al. 2022). and also causes or exacerbates underlying conditions such as asthma, emphysema, bronchitis, and tuberculosis (*Trustees for the time being of Groundwork Trust v Minister of Environmental Affairs (39724/2019)* [2022] ZAGPPHC 208) (South Africa).

Emissions from heavy industry plants disproportionately fall on poor black communities. In the Mpumalanga Highveld town of Secunda, the chemical refinery plant operated by Sasol is one of the biggest emitters of SO<sub>2</sub> on a single site (National Air Quality Officer 2023). eMbalenhle, a poor black township, is situated downwind of Sasol, close to its discard and ash dumps, tar pits, and effluent ponds (Hallowes and Munnik 2017). Thus, it is heavily affected by Sasol’s toxic emissions, including the periodic release of high levels of ammonia discharge (Hallowes and Munnik 2016). One investigation showed high levels of

exposure to benzene (a known human carcinogen), especially when people were most likely to be in their homes (Pretorius and Okonkwo 2007).

Unsurprisingly, in 2007, the Minister of Environmental Affairs declared the Mpumalanga Highveld region as part of the ‘priority area’ in terms of Chapter 4 of the *National Environmental Management: Air Quality Act 39 of 2004* (South Africa), due to having dangerously poor air quality (as defined in Section 18(1) of the Act). Due to this recognition, the government was mandated to implement an air quality control plan to counter harmful air and manage the region’s air quality moving forward, based on Section 19 of the Act. Following pressure from civil society and environmentalists, an action plan was eventually drafted by the Department of Environmental Affairs in 2012 but faced delays in implementation (Centre for Environmental Rights, groundWork and the Highveld Environmental Justice Network 2017). As a result, in 2019, the Centre for Environmental Rights launched a High Court challenge to the government, formally known as the *Trustees for the time being of Groundwork Trust v. Minister of Environmental Affairs (39724/2019) [2022] ZAGPPHC 208 (South Africa)*, and informally as the ‘Deadly Air’ case. This highlighted the difficulty that low-income people within the Mpumalanga Highveld region were having in getting their voices heard when faced with violation of their environmental rights (*Trustees for the time being of Groundwork Trust v. Minister of Environmental Affairs (39724/2019) [2022] ZAGPPHC 208 (South Africa)*). The clear message has been that people’s possibility of seeing their environmental rights protected, as established in Section 24 of the Constitution of the Republic of South Africa, 1996 depends on their economic status (*Trustees for the time being of Groundwork Trust v. Minister of Environmental Affairs (39724/2019) [2022] ZAGPPHC 208 (South Africa)*).

Those living within the Mpumalanga Highveld region suffer not only the impacts of emissions from coal-fired power stations and several other heavy industries but also coal mining itself. In South Africa, mining is intrinsically linked to the oppression of black people (Kamolane-Kgadima et al. 2022). The state–corporate nexus in the mining sector has historically resulted in the abuse, mistreatment, and disposal of black bodies (Yekela 2004). This is evidenced in both exploitative black labour and neglected mining-affected communities. Despite these communities bearing the burdens of mining—including air pollution, pollution of water sources, blasting that cracks houses, and depletion of water sources—they seldom benefit from the resources extracted from beneath them (Centre for Applied Legal Studies, Sekhukhune Combined Mining-Affected Communities and Amnesty International 2022). In addition to being subjected to colonisation, the *institutionalisation* of colonialism through apartheid in South Africa solidified many laws, practices, systems, and policies that aggravated the marginalisation and exploitation of black people (Madlingozi 2007). This is demonstrated in a way that is often neglected - through devastating environmental impacts that are disproportionately damaging to black and poor communities (Benya 2015; Stull, Bell and Ncwadi 2016).

### **Global Environmental Injustice and the State–Corporate Crime Conundrum**

An analysis of the causes and effects of environmental harms within the Mpumalanga Highveld region and the failure to remedy these necessitates discussion of the relationship between the state and corporations. A broader understanding of the global context in which states and corporations relate is also essential.

Economic wealth and its accompanying power lie, for the most part, in the hands of the Global North. There is much correlation between the attainment and exercise of power by the Global North and the subsequent loss and detriment experienced by the Global South (Aginam 2000; Collier 2007). This is a result of colonialism and its persisting legacy evident in the number of alarming environmental and human rights violations. These harms and violations occur predominantly in the Global South due to operations by transnational corporations parented in the Global North (Böhm 2023; Goyes and South 2017; Muchlinski 2001). In this context, the legacies of colonialism continue to shape the experiences of people in the Global South (Budo, France and Natali 2023). This influence affects many aspects of life, including why countries in the Global South often struggle with poverty despite their rich natural resources. In contrast, countries in the Global North tend to thrive more consistently (Meyersfeld 2017), not least because of wealth built on the proceeds of colonial exploitation. The extraction and processing of minerals from Africa often do not serve the African people on whose land they are found, instead feeding and driving the economies of the Global North (Lessenich 2019). At the same time, Africans are left with hazardous mine dumps, polluted air and water, deforestation, forced displacements, poor community development, and various other social, economic, and sometimes even political problems (Meyersfeld 2017).

A striking feature of extractivism is the export of mass natural resources from Global South nations for the benefit and prosperity of the Global North, while leaving the former with the consequent environmental devastation (Acosta 2017). The term ‘extractivism’ has been described as a mode of accumulation (Acosta 2013) and is marked by the hollowing out of nations across Latin America and Africa through resource exploitation, (neo)colonisation, and destruction (Acosta 2013). Over time,

the definition of extractivism has been refined to the accumulation of natural resources by, and for the benefit of, the Global North, to the detriment of the Global South (Acosta 2013, 2017; Goyes 2019, 2023; Goyes and South 2017; Raftopoulos 2017). The conceptualisation of relations between the Global North and Global South in terms of environmental harms is a fundamental focus of southern green criminology. The geographic and metaphoric North and South—which can also be referred to as core (Global North) and periphery (Global South) countries—provide a framework in which environmental harms at the hands of state and corporate cooperation can be understood (Goyes 2019, 2023). Southern green criminology is thereby instructive in critically analysing environmental harm within the context of the Global North/Global South divide.

While green criminology focuses on the harm committed to nonhumans and ecosystems (Lynch and Long 2022), southern green criminology pays additional attention to the colonial histories of countries in the Global South. It examines how these are tied to their present-day environmental devastation (Brisman and South 2018; Goyes 2019, 2023). In a way, southern green criminology gives voice to the intersection of oppression and marginalisation, environmental harm, neo-colonialism, and the exploitation of the Global South at the hands of the Global North (Goyes 2019, 2023).

Best described as a framework and not a perspective (Varpio et al. 2020), southern green criminology is more than a lens through which ecological harms and their impacts can be analysed. It is a deeper theorisation and critique of the global systems allowing a continuation of colonial relations between the Global North and Global South, creating and perpetuating harm to humans and nonhumans (Goyes 2023). This harm, in turn, fuels significant environmental crises—including ecological discrimination (Goyes 2019)—with often irreparable consequences.

Many operations conducted by transnational corporations parented in the Global North depend on serious environmental harms, exploitation of local people, illicit flows of money out of the countries, the entrenchment of poverty, and no actual development in the Global South countries in which they operate (Böhm 2019; Meyersfeld 2017). The consequences of the immense power of the Global North over the Global South have long inspired vigorous calls for international measures to hold transnational corporations accountable. These calls have, however, been vehemently opposed by many countries in the Global North (de Shutter 2015). These powerful transnational corporations also often collude with Global South governments to evade accountability (Böhm 2023; Goyes and South 2017). It has become (transnational) corporate practice to take advantage of weaker regulatory systems and corruption in Global South countries to advance their interests, despite its detrimental effect on local communities and the environment (Böhm 2023).

This toxic relationship between the state and corporations can be described as a state–corporate crime. State–corporate crime is defined as:

... illegal or socially injurious actions that result from a mutually reinforcing interaction between (1) policies and/or practices in pursuit of the goals of one or more institutions of political governance and (2) policies and/or practices in pursuit of the goals of one or more institutions of economic production and distribution. (Michalowski and Kramer 2006: 15)

State–corporate crime is also increasingly applied within decolonial perspectives on environmental harm in the Global South (Böhm 2023; Brisman and South 2018; Goyes 2019). Kramer (2014) argues that this term can, and should, be applied to corporations' and states' refusal to eradicate harmful emissions. State–corporate crime is thus evident within the Mpumalanga Highveld region, where both state and corporations are responsible for the environmental harms within the region as they fail to implement measures that would meaningfully improve the air quality.

The state recognises its obligation to protect people's Section 24 right to a clean and safe environment, and this right was found by courts to be immediately realisable. However, state authorities continue to cause and allow the violation of this right in the Mpumalanga Highveld region (*Trustees for the time being of Groundwork Trust v. Minister of Environmental Affairs* (39724/2019) [2022] ZAGPPHC 208) (South Africa). Similarly, although the state accepts that corporations have done little to eradicate or even alleviate emissions leading to poor air quality, these corporations are not held accountable (Department of Environmental Affairs 2011) (South Africa). Instead, there is a continual failure by both state and corporations to provide effective remedies. The state views environmental harm as an inevitable by-product of otherwise lucrative business activities undertaken by, and between, the state and corporations. Thus, a growing appetite exists among critics for measures beyond existing legal frameworks to address environmental harms.

Some of the ways in which states such as South Africa contribute to environmental harm in collaboration with corporations are:

(1) Enacting policies supporting the deregulation of corporations or opposing policies that result in the increased regulation of corporate power (White 2010). An example of this is the South African state's resistance to implementing the principles of free, prior, and informed consent for communities who are, or could be, affected by mining activities (*Baleni and Others v. Minister of Mineral Resources and Others [2018] ZAGPPHC 829*) (South Africa).

(2) Failing to act on its powers to hold corporations accountable (White 2010). The Mpumalanga Highveld region is a befitting example. National laws and regulations mandate the state to reduce toxic emissions in the region's air (Section 19 of the *Air Quality Act 39 of 2004* (South Africa)). Nevertheless, the state has dually failed to *reduce its own* emissions from its power stations and *act against* mining and heavy industry corporations who continue to commit environmental crimes.

(3) Corruption (White 2010). The Judicial Commission of Inquiry into Allegations of State Capture, Corruption and Fraud in the Public Sector including Organs of State ('State Capture Commission') was instituted following a preliminary investigation into serious allegations of corruption involving former President Jacob Zuma and other senior government officials, and the capture of the South African state (Public Protector Report 6 of 2016/2017). Amongst its many findings, the State Capture Commission reported that corporations bribed government officials to influence political decisions and thereby advance their interests. Kickbacks are often the hallmarks of these deals that cause states to make harmful decisions favourable to corporates or to overlook their harmful acts. Corporate capture and business-centric laws, policies, and practices have thus allowed the state to fail to use its powers to curtail corporate impunity. Meanwhile, corporations accumulate enormous wealth and profits at the expense of communities and the environment.

### **The Quest for Environmentally Just Reparations: The Shortcomings of Existing Measures**

The discourse about the right to reparations for victims of immeasurable harm has grown internationally and has lately included victims of environmental injustices. In several examples under international law, the United Nations (UN) General Assembly has supported calls for environmental reparations and for member states to undergo a process with the United Nations Compensation Committee (UNCC) to reach an agreement on compensation for environmental harm. The UNCC has issued several orders including, but not limited to, awarding money to clean and repair damaged soil, water, coastal ecosystems, and other harms (Payne 2017). This system was exemplified when the UN General Assembly passed resolutions calling for the compensation of coastal cleaning and remediation costs after the Israeli Air Force's 2006 strikes on oil storage tanks. These strikes, near the Lebanese Jiyeh electric power plant, resulted in oil spill damage that could have had adverse effects on human health, biodiversity, fisheries, and tourism in Lebanon (Payne 2017).

Environmental reparations, however, should not be restricted to international law mandates. Experts have argued for the inclusion of this concept in the environmental justice framework of countries such as the United States of America (Collin and Collin 2005). Similarly, in countries with a long history of environmental racism and other injustices, such as South Africa, environmental reparations would be:

... spiritual and environmental medicine for healing and reconciliation. They are legally possible and form the path to justice and restoration of the living systems we depend on. Even talking about environmental reparations is a first step toward a fair transition to a sustainable future, a necessary first step in preparing ourselves for more meaningful and inclusive dialogue. (Collin and Collin 2005: 221)

Urgently repairing the most damaged areas of the planet is required not only to satisfy claims of justice but also to acknowledge the interdependence of all living beings on severely harmed living systems (Collin and Collin 2005). If we genuinely want to be sustainable, we must now act in a just manner that considers the specific requirements of environmental reparations in disenfranchised communities of colour. To an extent, we must also begin the discussion on whether these environmental reparations must be accompanied by an apology or an admission of wrongdoing to the marginalised community who have had their relationship with the environment fundamentally altered (Collin and Collin 2005).

In the Mpumalanga Highveld region, securing environmental justice through environmental reparations is particularly pertinent. In this community, even one hour's exposure to high levels of NO<sub>2</sub> and SO<sub>2</sub> can negatively affect mucus membranes, cause respiratory system infection, compromise lung tissue (especially in children), and increase asthma attacks and heart disease (Hallowes and Munnik 2017; Manisalidis 2020). Civil society organisations and communities, thus, have fought to force the South African Government and corporate entities, such as coal mining companies, to implement remedies to the air quality crisis in the Mpumalanga Highveld region.

As discussed above, parts of South African legislation regulate the repairing of the environment in various ways. For example, the *National Environmental Management Act 107 of 1998* (South Africa) (NEMA) is designed to protect against environmental harm and violations can be the basis for criminal prosecution in the environmental setting, as Section 33 defines (107 of 1998). In addition, Section 51(1)(a) of the *National Environmental Management: Air Quality Act 2004* (South Africa) imposes a fine of R200 000—equivalent to USD10,895 at the time of writing—and possibly imprisonment of 10 years for contravening the Act. These criminal sanctions, however, may fall short of deterring environmental harm and holding offenders accountable. For instance, when an environmental offence is committed, the offender typically gains a sizeable financial advantage and the legal consequences imposed frequently fall short of effectively punishing the offender.

The South African legal system also falls short of addressing the damage the offender's actions have caused to the environment and the people who rely on it. Section 34(1) and 34(3) of NEMA (107 of 1998) provides for compensation and Section 34(3) looks explicitly at a monetary advantage a perpetrator might have gained, as was the case in *Uzani Environmental Advocacy CC v. BP Southern Africa (Pty) Ltd (2017) CC82/2017*. However, there is a need for victim- and environment-centred reparations that may need to go beyond compensation.

The enforcement of legislation by courts has only provided partial relief. In the 'Deadly Air' case, the Court granted a declaratory order that the air pollution in the Highveld priority area was a violation of the residents' right under Section 24a of the 1996 Constitution and that the Minister had a duty to publish regulations under Section 20 of the *National Environmental Management: Air Quality Act*. The Court also allowed the applicants' petitions that the present Minister's delay in passing regulations be ruled unconstitutional and that the prior Minister's reluctance to do so be examined and overturned (*Trustees for the time being of Groundwork Trust v. Minister of Environmental Affairs [2022] ZAGPPHC 208*) (South Africa). Should the Minister comply with the court order, implementing the plan could significantly reduce emissions causing harm in the Mpumalanga Highveld. At the time of writing, in November 2023, the Minister sought to appeal the judgement and court order.

Courts have also been instrumental in enforcing accountability mechanisms against corporations. Corporations such as SAPPI paper mills have been held criminally liable for emitting toxins and causing environmental harm (Kidd 2004). In the case of *Uzani Environmental Advocacy CC v. BP Southern Africa (Pty) Ltd [2020] ZAGPPHC 222* (South Africa), BP Southern Africa was criminally charged by the Uzani Environmental Advocacy CC in a private prosecution for constructing and managing filling stations without the necessary environmental authorisations. The Court determined that Uzani Environmental Advocacy CC had the right to bring a private lawsuit against BP Southern Africa for violating the terms of the previous *Environmental Conservation Act 73 of 1989* (South Africa) ('ECA'). The Court also determined that the plaintiff had established beyond a reasonable doubt that the defendant should be found guilty of environmental crimes under the ECA, even though the plaintiff had successfully stopped and rectified the illegal actions under NEMA's Section 24G. Section 24G, therefore, does not affect the criminal liability of the accused entity. Ultimately, the potential harm to the biodiversity was not assessed before the construction of the filling stations to ensure that all impacts on the ecosystems in the area were mitigated.

Efforts to hold transnational corporations accountable for green crimes have, therefore, yielded some success with courts, but a further step needs to be taken through reparations for harm caused.

### **The Need for an African Perspective on Environmental Reparations**

As a concept and a socio-political movement, environmental justice has focused on the relationship between disadvantaged populations and environmental challenges (Pellow 2001; White 2010). Environmental justice activists assert that everyone has a right to a clean and healthy environment regardless of race, nationality, or income (Pellow 2001). Environmental justice emphasises how black people are disproportionately exposed to environmental threats, pollution, and degradation; how environmental legislation may be biased; and how black people are often underrepresented in environmental concerns (Pulido 1996). Furthermore, instead of the people-free biophysical systems envisioned by some Western ecologists (for a critique see Duffy 2022), Africans understand the environment as a geographical system intricately tied to people and society through everyday commonplace activities and interactions such as housing, labour, religious practices, and enjoyment (Mabele, Krauss and Kiwango 2022; Pellow 2016).

There is continuous debate about whether poverty generates racial inequality in the distribution of environmental harm or if race is the root source of environmental injustice (Pulido 1996). Many have suggested that the distribution of environmental dangers is influenced more by race than by poverty (Pulido 1996). However, race and poverty are essentially two sides of the same coin because racism is a limiting force in both the environmental and socio-political environments (Gilmore 2002). The barrier between communities that enjoy privileged access to the environment and those that are the victims of racism and

pollution widens as the gap between the rich and the poor, and between persons of colour and others, widens (Collin and Collin 2005).

Environmental reparations are, therefore, a means of overcoming environmental racism and achieving equity that is otherwise elusive for poor black communities. Environmental harm is multifaceted (de Oliveira, Prata and da Silva 2023; White 2010). Therefore, remedies in response to it should similarly be multipronged to ensure the addressing of, amongst others, financial and related loss, present and future impact on the environment, and people's interrelated injury (de Oliveira, Prata and da Silva 2023), as well as cultural legacies and identities impacted (Hall 2013). Remedies must, of course, go beyond these.

The Mpumalanga Highveld is no exception to the realities of environmental racism. Environmentally just reparations in this area must be both retrospective—acknowledging the historical harms caused and the impact thereof—and progressive in stopping the harms, implementing preventative mechanisms, and providing access to remedies for victims (Collin and Collin 2005). Environmental reparations by corporations must particularly be insisted upon for their role in entrenching harms and inequalities in this area. The achievement of environmental justice through environmental reparations for the Mpumalanga Highveld region also mandates that the state create a lasting and progressive plan to overcome the burden of toxic air on people and the environment.

We have made a case for environmentally just reparations in the Mpumalanga Highveld region and argued that such reparations must recognise and address environmental racism and the role of state–corporate activities in reproducing environmental harms in the region. We now expand on this idea by considering these reparations from an African perspective. Supported by the African Charter and the principle of restorative justice, we argue that Ubuntu is an overarching mechanism in Africa that not only supports the notion of environmentally just reparations but also mandates it.

### **Ubuntu and Environmentally Just Reparations**

Ubuntu is a well-known African value of interconnectedness, mutual care, and respect. The concept of Ubuntu stems from African philosophy and can be translated as 'I am because we are' or 'a person is a person through other people' (Terblanché-Greeff 2019: 97). Ubuntu can be seen as 'an ethic of care predicated on the practices of mutuality and sharing between humans and nonhumans' (Mabele, Krauss and Kiwango 2022: 96). The principle of Ubuntu can be applied to supporting a harmonious relationship between humans and the environment.

Ubuntu is particularly instructive in promoting environmental justice and reparation (Chibvongodze 2016; Etieyibo 2017). The concept underpins the importance of environmental restoration through reparations by applying a framework of mutual care, respect, community, and interdependence between the environment and ecosystems (Chibvongodze 2016; Norren 2022). Ubuntu bestows a sense of guardianship over nature and, where there has been an infringement of this value system, there must be reparations and restoration (Norren 2022). Where there has been environmental racism and injustice, Ubuntu calls for reconciliation, restoration, and reparation. In a sense, Ubuntu encourages human benefit from the environment and environmental care from humans, forming the reciprocity of interdependence (Etieyibo 2017; Mabele, Krauss and Kiwango 2022).

At its core, Ubuntu also demands communal justice (Letseka 2014). It mandates that harm to people and the environment is repaired to align with the balance of mutual benefit and interconnectedness (for a discussion of the challenges of bringing the logics of Ubuntu to the environmental context see Cornell and Van Marle 2005; Enslin and Horsthemke 2004; Norren 2022). Contrary to Western conservation and environmental preservation ideologies, African knowledge asserts that the protection and renewal of the Earth do not necessitate the separation of humans and nonhumans (Domínguez 2020; Mulligan 2002; Salleh 2016). Instead, living in harmony with nature has always been one of the central values of African people. Many African practices and customary knowledge systems capture the relationship between Africans and the environment. The symbiotic relationship between Africans and the environment buttresses the importance of a safe and clean environment and the urgency for environmental reparations to restore a healthy environment.

The application of the principle of Ubuntu to environmentally just reparations is supported by the African Charter. The Constitutional Court of South Africa emphasises that the concept of Ubuntu is deeply embedded in the Constitution (*S v. Makwanyane and Another* (1995) 237) (*Port Elizabeth Municipality v. Various Occupiers* (2004) 37)(South Africa). The Court recognises that the principle is 'foundational to the spirit of reconciliation and bridge-building that enabled our deeply traumatised society to overcome and transcend the divisions of the past' (*Dikoko v. Mokhatla* (2006) 113)(South Africa). Some of the fundamental values and principles of Ubuntu are also reflected in traditional African legal instruments.

The African Charter establishes the African Commission on Human and Peoples' Rights to, among other things, protect and promote human and peoples' rights under the Charter and to interpret the Charter. Article 24 of the Charter declares the right to a healthy environment favourable to one's development. This right is linked to several other rights, such as property, life, and health. Article 16(1) to (2) of the African Charter particularly states:

Every individual shall have the right to enjoy the best attainable state of physical and mental health. 2. States Parties to the present Charter shall take the necessary measures to protect their people's health and ensure that they receive medical attention when sick.

The African Commission on Human and Peoples' Rights linked Articles 24 and 16 in *Social and Economic Rights Action Centre and another v. Federal Republic of Nigeria 2009* Communication No. 155/96, wherein the Ogoni communities in Nigeria claimed against transnational corporation, Shell, for environmental contamination brought on by an oil spillage which caused environmental degradation and health challenges.

Similarly, the link between the rights to a satisfactory environment (Article 24) and property (Article 14) was made in *Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v. Kenya (2003) 276/2003*. The African Commission found that the removal of the Endorois people from their land to build a game reserve and to grant a ruby mining concession constituted violations of their right to property. Article 4, the right to life, also cannot be exercised outside a safe environment. In *The Registered Trustees of the Socio-economic and Accountability Project (SERAP) v. Nigeria & UBEC (No. ECW/CCJ/APP/0808)* (ECOWAS 2009), it was held that 'the environment is essential to every human being', stating that 'the quality of human life depends on the quality of the environment'.

The African Charter recognises the connection between the African people and their environment, acknowledging that protecting a clean and flourishing environment is intrinsic to realising other rights. Therefore, the Charter inherently recognises the interdependence of humans and the environment and emphasises the importance of Ubuntu in preserving this relationship. If this interconnectedness is disrupted by harmful activities like air pollution, it is necessary to implement mechanisms, such as environmental reparations, to restore the relationship. Applying Ubuntu to environmental justice should be an entrenched practice, especially when making decisions pertaining to environmentally vulnerable people such as the inhabitants of the polluted Mpumalanga region (Chibvongodze 2016; Le Grange 2012; Terblanche-Greeff 2019).

## Restorative Justice

There has been limited success in tackling environmental harms caused by states and corporations in the Mpumalanga Highveld region. Alternative conflict resolution methods, such as restorative justice, provide an opportunity to compensate more effectively for environmental harms when the legal system cannot adequately address environmental disputes (Braithwaite 2002; de Oliveira, Prata and da Silva 2023).

The application of restorative justice in the Global South differs from the Global North. South Africa, similar to Latin America, experiences ongoing foreign exploitation of the nation's natural resources. This includes mining operations, deforestation, and other extractive activities. As in colonial times, Indigenous peoples also remain deprived of land. Disputes over stolen land, among other considerations, must therefore be considered when calculating environmental harm in formerly colonised Global South countries (de Oliveira, Prata and da Silva 2023).

It is challenging to define restorative justice, but some of its core principles are: non-discrimination; empowerment; observance of the limitations of legally prescribed punishments; respectful listening; equal concern for all stakeholders; accountability and applicability; respect for fundamental human rights, and; confidentiality and risks (Braithwaite 2003; de Oliveira, Prata and da Silva 2023). Additionally, central components of restorative justice are: (a) participation of the involved parties, families, and community; (b) attention to the needs of the victim and offender; (c) reparation of the harm caused; and (d) sharing responsibilities and obligations amongst offender, victim, families, and community for overcoming causes and consequences of the harmful events (Campos & Oliveira 2021: 149; de Oliveira, Prata and da Silva 2023).

As Lubaale (2017) argues, although the definition of restorative justice differs from one field to another, most agree that it involves methods and objectives of a retributive criminal justice system. However, 'in some instances, [restorative justice] has been used to describe transformational or transitional justice mechanisms such as those applied in truth and reconciliation commissions' (Lubaale 2017: 297).

Restorative justice has previously been applied to remedy environmental harms in the field of environmental conservation, although not without its challenges (Dore, Hübschle and Batley 2022). The realisation that the existing approach to justice in the conservation sector is punitive in nature, too restrictive in its approach, and too limited in scope led to the creation of a pilot project that would apply restorative justice ideas to wildlife offences (Dore, Hübschle and Batley 2022). The pilot recognised that to apply restorative justice in the South African context effectively, there must be due regard to South Africa's socio-economic harms that are characterised by structural violence (Hübschle, Dore and Davies-Mostert 2021).

One of the restorative justice models that can be used to facilitate the repair and restoration of air quality in the Mpumalanga Highveld region is the Zwelethemba Model (Shearing 2007). All stakeholders, including the polluting corporations, the victims of the pollution, government, and other interested groups should collectively find solutions to the deadly air crisis. The following Zwelethemba Model steps can be followed:

- A. **Identifying Root Causes:** Parties identify the contributing factors that led to the air pollution crisis in Mpumalanga, such as environmental racism.
- B. **A Future Orientation:** The goal would be to establish a future-oriented solution to the issue to ensure the eradication of deadly air in the region.
- C. **Justice as a Future Guarantee of Peace:** The environmental harms must be resolved through a forward-looking approach that ensures the participants' interests will be respected in the future and future conflict is prevented.
- D. **The Peace Gatherings—Creating Spaces for Free Deliberation:** Unlike most solutions which entail the government and corporations imposing solutions on affected communities, this approach will ensure that resolutions are reached by all participants and never enforced upon them by others.
- E. **Monitoring the Peace Agreements:** For the resolutions to be adhered to, one or several of the participants or stakeholders should commit to monitoring progress (Froestad 2007).

Murhula and Tolla (2020) found that the victim-offender and other similar models of restorative justice mechanisms were effective in the South African context if victims were fully informed, had the opportunity to ask questions of clarity, and could address the offender directly with their grievances. However, one must exercise caution and refrain from overstating the advantages of restorative justice, despite the high degree of victim satisfaction, because the options provided to victims sometimes do not provide a permanent solution to their difficulties. For example, since there are no criminal sanctions, offenders might not adhere to agreements (Murhula and Tolla 2020). Restorative justice models, such as the Zwelethemba Model, are also not particularly useful in violent or severe crimes. It may also prove challenging if offending parties (such as corporations) refuse to put the interests of affected communities first in repairing environmental harms. It is also our view that the courts should remain the forum for adjudicating gender-based violence and serious environmental crimes that lead to death (Murhula and Tolla 2020).

Nevertheless, similar to the pilot project mentioned above and the Zwelethemba Model, the principles of restorative justice can also be effective when dealing with the issue of air pollution in the Mpumalanga Highveld region. The state, community, victims, mining, and other extractive companies must collaborate to find solutions beyond litigation. In this way, safe air quality for people and the environment and the critical symbiotic and interdependent relationship between people and environment can be restored in the Mpumalanga Highveld region.

## Conclusion

Air pollution in the Mpumalanga Highveld region has reached a critical point. The state and business polluters continue to fail to curb emissions. More accountability for state–corporate environmental crimes in the region is necessary. In the meantime, the harm to both environment and predominantly marginalised communities entrenches inequalities and environmental racism. The current legal framework in South Africa only provides limited reprieve. It has become evident through the Mpumalanga Highveld crisis that environmental reparations are needed to achieve environmental justice. As such, we have argued that the principle of Ubuntu and its recognition of the interconnectedness of humans and nature can be applied to an Africa-contextualised environmental reparation system. Ubuntu, supported by the African Charter and the principles of restorative justice, can assist in formulating environmental reparations that can achieve true environmental justice addressing the legacy of environmental racism in South Africa. We conclude that environmental harms by both state and corporate entities require that they bear reparations. These environmental reparations must be cognisant of African principles of human and nonhuman relations under the guidance of Ubuntu and restorative justice. This is essential to acknowledge the harm caused by air pollution and to repair and rebalance the unity between people and the environment that is central to African life and values.

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