



Psychological Report: Everything for Dust

The Collective Trauma of Opencast Coal Mining on
Residents in Somkhele, KwaZulu-Natal, South Africa



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COMMISSIONED BY:
All Rise – Attorneys for Climate
and Environmental Justice

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List of Acronyms

All Rise Attorneys for Climate and Environmental Justice (All Rise)
Continous-Traumatic Stress Disorder (CTSD)
Mfolozi Community Environmental Justice Organisation (MCEJO)
Patient Health Questionnaire-9 (PHQ-9)
Post-Traumatic Stress Disorder (PTSD)
Post-traumatic stress disorder Checklist (PCL-5)

Suggested Citation

Barnwell, G. (2022). *“Everything for dust”: The collective trauma of opencast coal mining on residents of Somkhele in KwaZulu Natal, South Africa*. Expert report commissioned by All Rise Attorneys for Climate and Environmental Justice.

Reviewers

i. The report has been peer-reviewed by two internationally renowned colleagues identified by Barnwell for their expertise. The reviewers' feedback was integrated at Barnwell's discretion and the final report was shared with reviewers for their records. Reviewers short biographies are as follows:

Michael R. Edelstein is an Environmental Psychologist (Ph.D., Social Psychology, SUNY Buffalo, 1975) known as a pioneer of Psycho-Social Impact Assessment. As a scholar, Edelstein is best known for his global work on legacy issues affecting sustainability, most notably issues of environmental contamination and degradation, nuclear disaster and climate change. Among his writings are the books *Contaminated Communities: The Social and Psychological Impacts of Residential Toxic Exposure*. (Westview 1988), *Radon's Deadly Daughters: Science, Environmental Policy and the Politics of Risk* (Rowman-Littlefield 1998); *Contaminated Communities: Coping with Residential Toxic Exposure, Second Edition*, Westview 2004); *Cultures of Contamination: Legacies of Pollution in Russia and the U.S* (Elsevier 2007) and *Disaster by Design: The Aral Sea and Its Lessons for Sustainability* (Emerald, 2012). He has done extensive work on impacts to indigenous people. Currently he is conducting a study of the impacts of geothermal energy on Native Hawaiians and is under contract to Taylor Francis/Routledge for three volumes, *World Sustainability, Contaminated Communities, Third Edition* and *Environmental Turbulence*. He recently retired from the Environmental Studies and Sustainability Studies programs at Ramapo College of New Jersey after 47 years to focus on his writing, consulting and community work.

Coralie Trotter has a B. A. in Dramatic Art, B. A. Honours in Applied Psychology and an M. A. in Clinical Psychology. She is also a Psychoanalyst with the South African Psychoanalytical Association (a member of the International Psychoanalytical Association), and practices psychoanalysis fulltime in Johannesburg. She has had extensive clinical experience in various settings focusing on crisis and trauma interventions particularly for the Detainees Counseling Service and the Trauma Clinic of the Centre for Violence and Reconciliation. She was a facilitator for racial conflict resolution groups leading up to the dissolution of Apartheid. The supervision and teaching of other mental health professionals constitutes an important part of her work and she has facilitated several reading groups, most notably Groups for the Reading and Study of Psychoanalysis (GRASP), for the last twenty years as well as pro bono debriefing groups. Trotter is the recipient of the International Psychoanalytical Association Community Award for the Law and Psychoanalysis in 2019 for her work as an expert witness on the Life Esidimeni Arbitration Hearings.

I. Summary

2. I, Dr Garret Barnwell, was retained by All Rise to provide an expert opinion on the psychological impacts of opencast coal mining on residents of Somkhele in KwaZulu Natal, which All Rise represents. My expert opinion is that opencast coal mining in Somkhele has had profound adverse psychological impacts of a collective traumatic nature on those living on the fence lines. This opinion is based on a community psychological assessment I conducted and is detailed in this current report and summarised in this section.
3. Opencast mining has a deleterious impact on local ecologies due to the demand for coal extraction and, in some cases, water in areas with scarcity. According to the United Nations Special Rapporteur David Boyd,¹ this coal extraction also contributes to “prodigious volumes of pollution and toxic contamination” that profoundly impact health (p. 3). In the same report submitted to the United Nation’s Human Rights Council, forty-ninth session, Boyd attests: “the devastating toll inflicted upon health, human rights, and ecosystem integrity by pollution and hazardous substances continues to be largely overlooked.”
4. Although mental health is also largely neglected in determining the environmental impacts of mining projects in South Africa², significant international research shows how mining can contribute to trauma, severe mental health conditions, and other psychological adversities³.
5. Mental health is inseparable from physical health, community wellbeing, ecosystem integrity, and justice. Conversely, environmental injustices that assault physical health, community wellbeing, and ecosystem integrity can be collectively traumatising, harming psychological and social wellbeing and stifling the flourishing of individuals, households, and communities.
6. In my expert opinion, the collective trauma (including high levels of continuous traumatic trauma disorder, depressive and anxious reactions, and suicidality) of these projects, particularly in Somkhele, are the consequence of disruptions to the historical relationships with place, relocations, the experience of sacrilege in exhuming and relocating family members into unmarked graves, loss of land and livelihoods, the introduction of community conflict, and toxic contamination⁴. Severe psychological distress is also a result of damage to cultural knowledge, practices and ways of becoming in the world from the introduction and operation of mining in the area. This psychological distress is mostly unresolved as families interviewed are subject to chronic traumas and stressors, including violence, environmental assaults, poor health and other daily reminders of significant loss. Although mining was, for some of those interviewed, seen as potentially amplifying their family's wealth and wellbeing, living in a opencast coal mining area has become a chronic stressor making life worse and stifling the possibility for the family to flourish. For most of those who reported severe psychological distress, the current conditions have made it more difficult, if not impossible, to recover completely.
7. The experience of collective trauma is inseparably linked to how well community and government structures function. In the context of toxic contamination, corrective factors such as whether preventative

¹ Boyd, 2022, p. 2

² Dietler et al., 2020

³ Cordial et al., 2012; Edelstein, 2003; Erikson, 1995; Tucker et al., 1995

⁴ Albrecht et al., 2007; Cordial et al., 2012; Dietler et al., 2020; Edelstein, 1989

measures are in place (such as, accessible complaint and reporting systems) and whether these benefit complainants and how quickly issues (for example, exposure to dust, water quality, house damage from blasting) are addressed once registered are integral. Trauma can be made worse when an institution perpetrates wrongdoings or when actions are not taken to prevent harm by authorities⁵. For those interviewed, these experiences have resulted in feelings of being oppressed, neglected and betrayed by those previously trusted, including the mines and traditional leaders. There has been a loss of confidence in the structures that once governed and gave meaning to the community. Those interviewed were mainly discouraged about the complaints mechanisms viewed as inaccessible and poorly functioning, and many issues were said to be unresolved.

8. Although mental health services can support trauma survivors' recovery, those enduring chronic (traumatic) stressors must first meet their safety needs. Ending the exposure to traumatic stressors (e.g., stopping contamination or relocating households who have the desire to move); where possible, correcting and remediating harm that has been done (e.g., identifying graves; remediating landscapes; improving access to safe drinking water); and restituting what has been made destitute through processes and decisions that have taken place to extract coal (e.g., reparations for the loss of Isibaya/cattle Kraal (plural: Izibaya), land and livestock) are some of the actions essential to protect exposed families from further harm, and to create meaningful conditions for psychosocial recovery and flourishing. To help end the suffering, psychological interventions should address injustices that make living in this opencast coal mining area psychologically harmful.

2. Credentials

9. I, Garret Barnwell, am an independent practice clinical psychologist registered with the HPCSA (PSO128317) with over seven years of clinical experience and more than 12 years of international humanitarian and community psychology practice. I hold the following degrees from Nelson Mandela University in South Africa: PhD in Psychology (2021); M.A. in Clinical Psychology (cum laude, 2016); M.A. in Conflict Transformation and Management (2013); Honours in Psychology (2009); B.A. in Psychology (2008). Additionally, I hold a Professional Diploma in Humanitarian Assistance from Liverpool School of Tropical Medicine in the United Kingdom and a Certificate in Ecopsychology from Pacifica Graduate Institute in the United States of America. I have relative professional expertise on the psychological impacts of mining, climate change and environmental injustices. This expertise is based on my experience as a clinical psychologist and researcher working directly with communities affected by large-resource development projects in South Africa. As an expert on the psychological dimensions of climate and environmental justice issues, I am professionally active locally and internationally, holding various leadership positions, lecturing, publishing, editing, and reviewing extensively on this area of expertise. I also provide psychotherapeutic services for those affected by the above issues.

⁵ Barnwell & Wood, 2022; Lingardi & McWilliams, 2017; C. Smith, 2017; C. P. Smith & Freyd, 2014

3. Methodological Approach

10. I, Dr Barnwell, was commissioned by All Rise to provide an expert opinion on the psychological impacts of mining on community members of Somkhele in KwaZulu Natal that All Rise is representing. The central question from All Rise that this report responds to is: “What are the impacts of mining on the psychological wellbeing of community members interviewed today?” The conclusions reached in this report were informed by my clinical experience and the employment of a mixed-method approach that has integrated multiple sources of information, including in-person, in-depth clinical assessments, psychometrics, collateral interviews, document examination and psychological literature integration.

11. The in-depth interviews took place between Monday, 21 February and Tuesday, 01 March 2022 and a group interview took place in September 2022. Thirty-five individuals (16 female; 17 male) were interviewed from 26 families. All provided written and verbal consent to the interviews. Consent forms were bilingual (English and isiZulu). Their ages ranged between 22 and 71, and 55 was the average age of those interviewed. All could provide firsthand accounts. All interviews (except for the final group meeting held in September) took place at participant’s residence, which also gave me an opportunity to understand how participants live along the fencelines of opencast coal mining. I took the photographs included in this report during these processes. All interviewees are residents in Somkhele, and their identities have been anonymised by stating “Resident #,” where # indicates a random number assigned to the interviewee. Only in the section on *Suicidality and Alienation* have even the identifiers been wholly redacted. The reason for anonymising the quotes is to protect those who shared their experiences, as it is common knowledge that those raising concerns about mining have been targeted⁶. Most of those interviewed identified as Mfolozi Community Environmental Justice Organisation (MCEJO) members and all were introduced to me by All Rise. Although not identifying as such, MCEJO can be understood as an embodied health movement where there is a common relationship where members have bonded over shared experiences of resisting environmental harms and other ongoing stressors, as well as recovering and navigating experiences of collective trauma⁷. Those who experience environmental threats can come to feel “estranged from the rest of humanity and gather together in groups with others of a like mind, drawn together by a shared set of perspectives and rhythms and moods”⁸. Members share a sense of communality with the place and their cultural knowledge, practices and ways of becoming in the world have been influenced by this relationship (see 5.1 *Communality*). All the members interviewed were originally from mine-affected Areas 1 or 2 (see





⁶ Youens, 2021

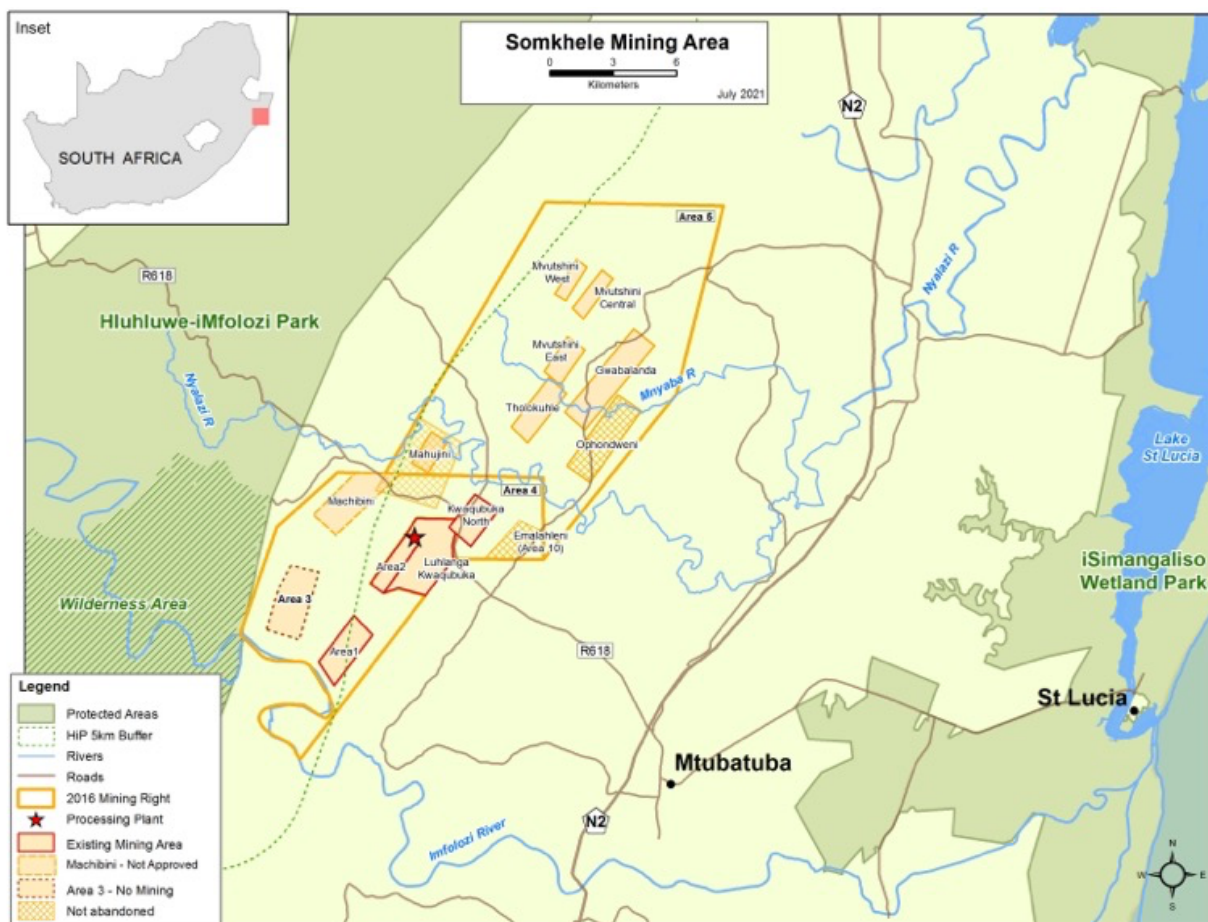
⁷ Brown et al., 2011; Tucker et al., 1995

⁸ Erikson, 1995 p 240

image 1 below). Area 1 is north of the Mfolozi river, while area 2 is situated further north-east of area 1. Areas 1 and 2 required that families be relocated, and there are several homesteads near these areas that are being actively mined.

Image 1. Somkhele Mining Area (Source: map provided by All Rise).

	The areas outlined in red are where mining is currently taking place.
	The red star shows the position of the processing plant complex.
	The 2016 Mining Right – Areas 4 and 5 - is outlined in orange, with smaller orange areas depicting the proposed mining pit areas.
	The three areas within the 2016 Mining Right, which Tendele has said it will not be abandoning, are indicted with orange cross hatching.



12. The in-depth interviews followed a semi-structured clinical assessment that comprised of history taking (before and during mining operations) and an assessment of mental status, which included the Patient Health Questionnaire-9 (PHQ-9) and the post-traumatic stress disorder Checklist (PCL-5) psychometric assessments. The PHQ-9 is a psychometric assessment to assist in diagnosing major

depressive disorders and is also a reliable indicator of the severity of psychological distress⁹. The PCL 5 is a reliable indicator of post-traumatic stress sequelae, and the cut-off scores of between 31 and 33 out of 80 indicate a probable clinical diagnosis of post-traumatic stress disorder¹⁰. Although the conditions that residents endure are of a continuous traumatic nature, the PCL5 was used to identify common traumatic symptoms. Additionally, I used the ICD-II criteria to assess general anxiety, which I have detailed in section 5.3.2 *Depressive and Anxious Reactions*.

13. These assessments played a complementary function in supporting the overall clinical assessment. Some residents completed these psychometric assessments themselves, while I verbally administered others. Where required, English-isiZulu-English translations were performed by Lihle Mbokazi, a cultural interpreter, lay counsellor, community organiser and All Rise employee. I worked well with Ms Mbokazi, and before the interviews, Ms Mbokazi verbally agreed to the terms of reference for this translation, outlined in Annexure I.

14. In September, I, with the help of Ms Mbokazi, facilitated a follow-up group meeting where most of those families interviewed were represented. I discussed the main findings of the report and recommendations with participants, and additionally asked again for their consent in sharing the findings. Although the report's clinical findings have been reached independently, this process helped confirm the report's contextual validity¹¹ (i.e., how well the findings and recommendations were seen by those interviewed to reflect their subjective reality). There are also overlaps across findings with other specialist reports, such as Asanda Benya's research report on the gender dynamics of coal mining in Somkhele, Michael R. Edeltstein's Psycho-Social Impacts Associated with Tendele Coal Mine and Dineo Skosana's reports on grave matter in Somkhele¹². On the Additionally, the report was peer-reviewed by two international psychological experts, Michael R. Edelstein, PhD and Coralie Trotter (see page 4).

4. Limitations

15. There are several limitations to the report that should be noted. The language was a barrier to conducting interviews, which was overcome by utilising a cultural interpreter familiar with the setting. Thirty-five residents were interviewed; statistically, this sample is not representative of the general population in the area. However, experts on the psychosocial impacts of mining suggest that critical case study sampling is more appropriate as the purpose is to show harm rather than the generalisability of this harm across the population¹³. In-depth case studies, such as the current case study, are one of the recommended methodologies for psychosocial impact studies¹⁴.

16. Additionally, although the study did not assess the neurocognitive decline in adults interviewed, studies suggest that exposure across a lifetime to environmental pollution is positively associated with

⁹ Bhana et al., 2015; Cholera et al., 2014

¹⁰ See more information here: International Society for Traumatic Stress Studies (ISTSS)

¹¹ Watkins & Shulman, 2008

¹² Benya, 2022; Edelstein, 2018; Skosana, 2020, 2022; Additionally unpublished works by Skosana detail grave matters in detail.

¹³ Edelstein, 2003

¹⁴ Brown et al., 2011; Edelstein, 2003; Erikson, 1995

neurocognitive disorders¹⁵. Future research could determine the extent of risk of various neurocognitive disorders for fence line communities in Somkhele over their life course. Thus, this study cannot rule out neurocognitive disorders for those exposed. Yet, diagnostically this does not have a bearing on the report's findings, as it is possible to have co-existing mental health, neurological or substance use issues. For example, someone who has mild neurocognitive decline can also experience severe anxiety and posttraumatic stress reactions. The time spent with each family revealed multiple concerns. A more comprehensive assessment of those affected by and living near to the opencast coal mine will likely show a greater diversity of psychological reactions and mental, neurological and substance use disorders. Thus, in interpreting the results of this assessment, it should be noted that while the findings demonstrate profound collective trauma, there are likely to be many more dimensions and greater depths to these psychological wounds.

17. Moreover, multiple health-related issues were reported by those living closest to the mine. Access to health-related data for residents living on the fence lines of the mines was an issue. It may be of value to develop a health assessment tailored explicitly for those living around the mine to explore these specific health-related concerns (e.g., possible skin conditions, asthma and other pulmonary issues, cardiovascular problems, neurocognitive disorders, inflammation, and sleep disorders). These assessments should work towards identifying possible mitigation measures and improving access to treatment for conditions that may be specific to those living around the mining area of Somkhele.

18. No children were interviewed. Several parents reported that their children struggled with schooling, suffered skin conditions and other health issues, and were concerned for them. Furthermore, there is ample literature that shows that environmental problems can have adverse impacts on childhood development. A study or screening focusing on child-specific psychological developmental issues would be of benefit.

19. The report responds to a particular question (“What are the impacts of mining on the psychological wellbeing of community members interviewed today?”) and, for this reason, has focused on the clinical expressions of the collective trauma experienced. The experience of collective trauma is not mutually exclusive to everyday resistance to mining nor life-affirming practices that seek to subvert the atmosphere of violence created in such mining areas that threaten life¹⁶. Nevertheless, the nature of this report does not allow for me to articulate extensively how residents (mostly elders, grannies and grandfathers, parents and youth) are, despite all odds, actively engaged in transforming their situation through engaging in the legal system, organising, finding new ways to create community, for instance. Those who shared their experience demonstrate remarkable strength and courage in opposition to dehumanising conditions. This report importantly bears witness to an aspect of this experience – the collective trauma – of those who are also engaged in life-affirming struggles against unjust social arrangements for a better life.

¹⁵ Lin et al., 2021

¹⁶ Gómez-Barris, 2017; le Billion & Lujala, 2021

5. Expert Opinion

20. My expert opinion is that the accumulation of traumatising and stressful events associated with the introduction and operation of opencast coal mining in Somkhele has caused psychological injury, which is consistent with collective trauma and other adverse individual psychological reactions, such as continuous traumatic stress disorders, depression and anxiety, which have developed and are maintained by the ongoing accumulation of threatening or horrific events¹⁷.

21. *Collective trauma*¹⁸ refers to the psychosocial effects of multiple stressors and traumatic exposures on a collective, e.g., a family, group, or community. The collective in the case of this report is those individuals and families interviewed who share experiences of loss associated with disruptive relocations, ecological destruction, the traumas of having their loved ones exhumed and reburied in unmarked graves, and those today fearing contamination as they live on the fence lines of opencast coal mines.

22. Underpinning collective trauma is the understanding that over time a person's community "becomes an extension of your own personality, an extension of your own flesh. This means that not only are you diminished as a person when that surrounding tissue is stripped away but that you are no longer able to reclaim as your own the emotional resource you invested in it [i.e., the broader collective]"¹⁹. Thus, collective trauma helps describe the shared psychological injury stemming from past and present adversities that have led to profound damage to a sense of communality (i.e., the social fabric tying one another together) and foregrounds factors that maintain psychological injury today.

23. Some of the major traumas and accumulating stressors expressed by those interviewed can be categorised into 1) the multiple losses associated with relocation (e.g., disconnection from land, destruction of Isibaya/cattle Kraal); 2) the horror and sacrilege of exhumation and reburial of deceased family members associated with relocations; 3) disruptions to identity and belonging through changes to social ecology; 4) impoverishment through loss of livelihoods and intergenerational wealth; 5) chronic environmental (health) stressors and perceived contamination; 6) community conflict and interpersonal violence. Additionally, as part of this collective trauma are elements of *betrayal trauma*²⁰ where those who are responsible for protecting communities (e.g., Tendele mine, government, traditional leadership and local authorities) are perceived as perpetrating wrongdoings, neglecting or scapegoating those who raise complaints and are perceived as not responding appropriately to the (chronic) traumatic and stressful incidents.

24. The experience of collective trauma does not override individual reactions. For example, most of those interviewed meet the criteria for continuous traumatic stress disorder, depression and anxiety. Nevertheless, collective trauma is suitable as an overarching framework since these individual experiences of psychological injury share similar origins rooted in the operations of the mining industry in Somkhele. Thus, understanding what has taken place as a collective trauma assist in making sense of the shared

¹⁷ World Health Organization, 2022

¹⁸ Erikson, 1976

¹⁹ Erikson, 1976, p. 191

²⁰ Barnwell & Wood, 2022; Erikson, 1995; Lingardi & McWilliams, 2017; C. Smith, 2017; C. P. Smith & Freyd, 2014

experiences of accumulative traumas and foregrounds the “difficulties of addressing past exposure in the context of an accurate appraisal of the potential for current and future harm”²¹.

5.1 Communitality

25. Today’s extraction areas 1 and 2 were not empty pieces of land (e.g., see image 2 of area 2). To the unbeknown visitor, except for the apparent opencast mine, it is difficult to see the physical changes that have taken place. The vestiges of streams, trails, farms, grazing land, and homesteads have been depleted, taken back by the bush or mined out since relocations. A few homesteads remain in areas where families were relocated. Other than the shells of some households, little of what constituted this community is still alive. For those who have remained behind and families in other areas living on the fence lines (including those relocated), today’s open cast mine is a daily reminder of the loss and fracturing of communitality. It is first necessary to describe some of how the sense of communitality was constituted to understand the extent of this collective trauma.

Image 2. Area 2 at the start of extraction in 2007 and 2022 (Source: Google Earth)



26. Before Tendele’s operations, rural villages were co-constituted by families originating from Somkhele and those from outside seeking prosperity and sanctuary. Although some of those interviewed had lived in Somkhele for generations, many families sought refuge in Somkhele after being dispossessed from “wilderness” areas established under the apartheid state, e.g., what is known today as Hluhluwe/iMfolozi Game Reserve and iSimangaliso Wetland Park. Some families also reported moving to Somkhele, fleeing other forms of apartheid-era violence, such as police brutality, segregation, and racial discrimination.

27. For instance, Resident 18 was born in Somkhele; however, his parents were forcefully removed from Hluhluwe. They came to the area to re-establish their family, seeking a place that would provide security. Resident 18 explained that his grandparents used to speak about the trauma of being forcefully removed from their land and how they felt abused, losing their homes, livestock, chicken and goats.

²¹ Stevens et al., 2013 p. 76

28. Somkhele was also said to be a place of pride, independence, and security in a time of great upheaval for those who found refuge in the village during apartheid. “I never wanted to work for a white man,” Resident 2 explained, and living in Somkhele before the mine came gave a sense of dignity, which was affirmed by being a farmer and having livestock.

29. For all of those interviewed, Somkhele was their home – a place of nourishment and belonging – where they could advance their family’s future. One resident described: “Somkhele had better living conditions for life. Water was better here where my grandfather had a large area of land and a massive field” (Resident 25). She continued explaining that “water was easy to access,” and their homestead was large and included a Isibaya where they had cattle, goats and chickens. Most homesteads were constituted by several buildings, subsistence farms, Izibaya, nearby water and grazing land (see image three below). Trails weaved in-between homesteads connecting families.

Image 3. Example of homesteads in Somkhele before relocation (Source: Google Earth 2022)



30. Many people shared life-affirming ambitions and dreamt about establishing themselves for their families in Somkhele before mining. For instance, a resident said he used to be a builder and saved up money to start farming sugar cane in the area where his father had land. He reported that he used around 17 hectares when the sugarcane was established. As a father, he said that he was able to make enough money from the sugar cane farm to financially support his whole family, including paying for university, monthly expenses and saving for retirement. In many ways, those who I spoke to described Somkhele as a place where there was the real potential for socioeconomic progress and the strengthening of intergenerational wealth.

31. Across generations, people living in the area have shaped their ecology to benefit their families, which also helped the larger village prosper. A patchwork of farms grew along the banks of the Mfolozi

rivers, streams, and villages knitting different families (e.g., see farms alongside the Mfolozi river in image 4). There was said to be a bountiful diversity of fruits, grains, leafy greens, marrows, roots, allium, edible plants, sugarcane and plants with medicinal and cultural that were cultivated, and laboured for the benefit of the family and successive generations. Although there were everyday staples, those interviewed said that different produce that each family grew would be shared, traded with one another and excess sold at local markets.

Image 4. Farms alongside Mfolozi River before and reclaimed by bush after being abandoned (Source: Google Earth 2022)



32. It is important not to romanticise conditions of living. An interviewee explained: “There were some challenges before the mine came. The clinic was far from our homes, but life was generally far better than it is now. We were happy with what we had because we had land and food, and we could afford to send our children to school (referring to the extra money that was obtained from selling excess produce at local markets)” (Resident 4).

33. There were also severe droughts over the years before mining. These droughts were said to have a devastating effect on communities. Yet, several people explained social support systems were in place that helped families regain their feet and re-establish their crops. The time spent cultivating the land, including during these difficult times, also entrenched families’ identities in place.

34. The symbiotic relationship between families, the broader community and the living landscape made the flourishing of one another possible. Other geographic features, such as the Mfolozi river, streams and creeks, also moulded the sense of communality. For instance, Resident 17 reported that people used to go and collect water: people would meet in these places, children would play and the elders would share stories. Additionally, rivers and streams were used for rituals (e.g., water would be used for wedding ceremonies). Thus, the geographic features are not inanimate but play a vital role in intergenerational knowledge transfer. As one interviewee described: “My home was nice...All of this area I had relatives, and it was beautiful to grow up in. We had land where I used to plough. We had cattle, goats and chicken.

Several of my children were born there” (Resident 4). Other activities, such as gathering indigenous fruit or collecting firewood from nearby woodlands, would also nurture a sense of belonging.

35. The significance of these bonds is often reflected in the severe loss of the sense of belonging created through community structures and the closeness of the community. For instance, it was described: “The church was far for people, and we gathered in one another’s houses. Today, people do not meet together anymore because the mine has scattered people. A school was also moved, which is now further away” (Resident 27).

36. All families whom I interviewed had livestock. Cattle, goats, and chicken were kept in Isibaya and chicken coops on the homestead. These animals, particularly cattle and goats, were said to be significant in developing an identity, cultural roles and masculinity. From an early age, young men will, after school, look after the livestock herding them in the fields around the village and broader grazing lands. Young boys would learn from older men, transferring traditional masculinities, responsibilities, and knowledge. During this process, socialisation would take place where boys would learn through doing. In the evenings, youth would come back and share stories with elders.

37. The relationship between families, livestock and land, were also crucial to shaping spirituality and maintaining a sense of wellbeing in the family homestead. For example, the presence of the Isibaya (i.e., the central cattle enclosure in the homestead) and cattle plays a spiritual protective function in that spirits will possess cattle instead of family members. The Isibaya is important for communing with Amadlozi²². For instance, it was explained to me that male elders of the family would gather in the Isibaya to commune with the ancestors during important cultural events, such as weddings. Additionally, it was said to reflect stature in the community and, thus, played a fundamental role in the homestead and positioning within society.

38. A place can play an essential role in a person’s spiritual life. At the heart of this existence is the family homestead. Family members who had died would bury their loved ones in the homestead where the family could be close to taking care of and commune with abaphansi (i.e., ancestral spirits). These ancestral graves were in different locations in the homestead, reflecting age, hierarchy and differentiating ancestral roles. For example, some families buried the head of the household next to one of the corners of the Isibaya. Therefore, one’s ancestral home is a node for family identity, culture, and spiritual well-being. For instance, it was explained that when a wedding takes place, certain rituals must be conducted in the Isibaya by male elders, who would also commune with abaphansi. It is partly for this reason that, traditionally, these customs take place on the soil of the homestead.

39. Additionally, whether receiving a message through a dream or someone falling ill, for instance, ancestral responsibilities are communicated that necessitates the individual or family’s attention. Following through with these obligations can bring a sense of well-being and often involve places like traditional homes, local places significant to the community, or burial sites. For example, a person said she had a calling from her father that she received in a dream to return and rebuild the family home (Resident 27). The dream disturbed her, but she said she “enjoyed it” when she followed the calling. “I started rebuilding the whole home,” she explained. When she heard of the mine coming, she worried that this

²² Spiritual figures summoned for assistance and protection

process would be interrupted. At first, the mine said she would not be relocated, but later, she was. Although she did finish, the mine later tore down her home to expand.

40. Thus, the relationships with the family, homestead, broader community and ecology bring psychologically identity and the sense of communality into being. There are many other ways identity and the sense of communality is created, some of which are outlined implicitly in the following report. Yet, the point here was to demonstrate how different aspects of the place play a fundamental role in shaping those I interviewed – their ways of knowing and becoming in the world.

41. It is no surprise that those interviewed described that the original sense of communality was fractured and disfigured by the social and ecological changes brought about by mining. What was once a thriving community with farming and grazing land has been obliterated and replaced by an industry that is psychologically associated with considerable harm. The sense of communality within and between communities living in Areas 1 and 2 has dramatically transformed for the worse. Today, these changes are experienced as collective traumas and accumulating stressors marked by a sense of institutional betrayal.

5.2 Trauma and Institutional Betrayal

42. In my expert opinion, multiple historical events were traumatic or significantly stressful for residents. For example, some significant events include the relocation process, destruction of homestead, exhumation and reburial of loved ones in unmarked graves and perceived toxic contamination. Those I interviewed reported at least two significant events that caused them distress and connected them to the broader experience of collective trauma. In this section, I will unpack these experiences in greater detail, but I would like to stress that these events are not “natural” and that a “human hand” plays an essential role in residents' experiences, worsening trauma.²³

43. Trauma survivors can experience a sense of institutional betrayal if authorities are involved in perpetrating wrongdoings, fail to protect individuals from wrongdoings or inadequately respond to correct wrongdoings²⁴. Institutional betrayal can complicate healing from trauma and contribute to a “loss of confidence in the scaffolding of family and community”²⁵. Additionally, “it can be profoundly painful when the people in charge of a company...deny responsibility, offer no apology, express no regret, and court out of sight behind lawyers and legalism”²⁶.

44. All interviewed residents reported feeling Tendele had betrayed them and that government and traditional authorities failed to protect them. As I have described in the previous section, people’s identities have been formed in relationship to place and the sense of communality that people shared. Regardless of how people came to Somkhele or how long they had been there, significant psychological energy goes into rooting and establishing oneself in a community. There were said to be rumors about mining coming to Somkhele before the formal public process was said to have commenced in 2007. It is unclear how many people were in support of the mine and how many were in opposition. Nevertheless, the fact of the matter is that despite some residents seeing the potential of mining enriching their lives,

²³ Edelstein, 2003, 2018; Erikson, 1995

²⁴ Barnwell & Wood, 2022; Erikson, 1995; C. Smith, 2017; C. P. Smith & Freyd, 2014

²⁵ Erikson, 1995 p. 242

²⁶ Erikson, 1995 p. 238

several people expressed that they were not able to raise discontent and did not feel fully informed about the consequences of mining. Today, however, all of those I interviewed said that mining had made their lives miserable.

45. Generally, the strong rhetoric of progress (e.g., that mining would bring jobs, better livelihoods and that mining was the future) and the perceived concealment of harm was viewed by residents as being one of the main traumatising aspects. According to residents, it has marked a significant betrayal that has only continued up until today. Feeling betrayed and resentful of the negative outcomes of mining, residents described the initial process of approving mining as a hard sell that did not meet their expectations of jobs and improvements in livelihoods and basic services. It was said that traditional authorities approved mining without everyone's informed consent, full knowledge of what was going to take place. There were also accessibility issues where contracts to be signed were said to be in English. Most of those interviewed said that they had to follow the direction of traditional elders and were not in a position to influence decisions being made. Despite this, residents said that they still trusted the local traditional authorities who until mining came were said to have made decisions that were in their best interest, which worsed the breach of trust and subsequent trauma. Many said they were only told to move by traditional leaders and did so feeling that the deal was already done. Most of those I interviewed expressed that they felt that they were not able to contest any decisions or raise their discontent. For example, I was told: "Even when you did complain, it was reported that the mine and the traditional leadership did not address the issues. We felt so betrayed, and we were promised things that never gave us". Those interviewed said the process has been challenging because they trusted that their interests were at heart with the decisions made.

46. The experience of trauma needs to be viewed within this broader experience of perceived institutional betrayal. All residents I interviewed reported feeling that Tendele had betrayed them and that traditional authorities and government had failed to protect them. Residents interviewed believed they were unaware of the extent of adversities or psychological wounding that would subsequently occur once they struck the agreement. Betrayal trauma is known to worsen trauma reactions²⁷. The following subsections highlight some of these main traumas and stressors described by those interviewed.

5.2.1 Relocation Losses

47. In my expert opinion, relocation-related losses are experienced by most of those interviewed as a traumatising event that profoundly contributes to psychological distress today.

48. Most of those I interviewed had been moved away from today's Areas 1 and 2. Families were moved at different times, and the approach to these waves of relocations varied considerably. For instance, Tendele gave some residents money to identify their own home, others were moved into houses that Tendela built, such as prefabricated housing, cluster housing or homes that resembled previous structures. The majority of residents described these moves as being highly stressful and undignified. Those living in cluster housing said that their community relationship is also under stress. It was reported that people "used to walk some distance to visit others," and now people live "too close to one another", Resident 23 explained.

²⁷ Barnwell & Wood, 2022; Erikson, 1995; Lingardi & McWilliams, 2017; C. Smith, 2017; C. P. Smith & Freyd, 2014

49. Most of those I interviewed who were relocated raised discontent about the relocation process. “The white people played us,” Resident 25 described. Another person interviewed described the relocation as a “violation” (Resident 19). There was a strong sense of betrayal about the relocations as most of those interviewed expressed that they felt the “deal was already done” at the time and had little say in the matter. Additionally, the interviews also suggest that there may have been language barriers. For instance, some of those I interviewed reported that what they signed was in English and were unaware of what they had signed.

50. Several families expressed that they felt they had to take deals soon because otherwise, they would lose out and have nothing. Some also said that they felt pressure to move quickly as the threat of the mine was coming, and the longer they waited to move the family, the more difficult it would be on them. Nevertheless, although the mine still brought some hope to some, there was a general sentiment that some unwanted pressures were placed on them to relocate. For instance, one family reported: “We moved up the hill when we heard that the mine would come,” fearing that they would be displaced overnight (Resident 27).

51. Part of the relocation process involved assessing the value of people’s homes and fields for compensation. One common strand expressed by those I interviewed was that this assessment process was experienced as undignified. In identifying how much a family would be compensated, assessors were said to have marked down houses with cracks, infrastructural issues, or other perceived problems. Resident 19 expressed: “We were treated like we were nothing, like we had nothing.”²⁸ It was said that this level of scrutiny felt dehumanising, as it was not only their lives that would be uprooted, but that the faults identified were experienced as devaluing their family even further in the process that required the family to give up so much already.

52. It was also reported that the money people received (e.g., R200,000) to move was used quite quickly and that it was difficult to re-establish the family to the standard of living that existed before (Resident 18). All families interviewed reported that there has been some deterioration in living conditions after the relocation and the introduction of the mine.

53. Not all families were moved into houses, and it was reported that the process was very disruptive. For instance, some ended up staying with other families until they felt they had stabilised and could start rebuilding their homes (Resident 18). Additionally, it was reported that when people were forcefully relocated and moved into other communities, some experienced animosity. For instance, arriving families were misrecognised as benefiting financially from the mine and were also perceived as disrupting the stability of the local community.

54. Although some of the houses were rebuilt by the mine, it was reported that many elements (e.g., Isibaya and chicken coop) that made up the original homestead were said to have been uncompensated or perceived to be undercompensated. These losses have had long-lasting adverse financial impacts on families that contribute to today’s psychological distress, discussed in the following subsections.

²⁸ Houses were most commonly compensated for, and this statement demonstrates how residents view their belongings as being more than the home. It includes land, isibaya (cattle kraal, plural: Izibaya), crops, seeds, etc.

55. Nevertheless, it is not only about the impoverishment and the loss of intergenerational wealth that those I interviewed described but also about the significant disruptions and disfigurations of communality, such as cultural and spiritual life.

5.2.1.1 Exhumation, Desecration and Unmarked Graves

56. In my expert opinion, one of the significant traumatising experiences has been the grave relocation process from homesteads in Area 1 and Area 2. The first stage of the trauma related to the graves removals was the exhumation of graves, and the second stage of the trauma is associated with the reburial.

57. First, it must be clearly stated that exhumation was not part of the traditional practices of the area. For instance, Resident 4 attested: “Traditionally, I have never heard or seen this taking place. It is not in our culture”. “It is not a good experience, because to everyone it is terrible...When you bury someone, you always say to them that it is their last home to stay. We believe their spirit protects the household, and you can become sick or experience bad luck if you disturb them. They can allow good and bad things to occur” (Resident 4). Thus, exhumation is foreign and is introduced by Tendele mine to gain access to land for extraction. Until Tendele came, it was said, no one living in the area had ever seen an exhumation, let alone needed to exhume and rebury their loved ones.

58. Before the Tendele came to the area, it was said that people buried their loved ones in the homestead. All family members' burial sites were well known and marked so the family could continue to commune with them. “I used to burn *impepho* and take a flower to speak to them,” Resident 4 described.

59. Although burial sites and practices vary from family to family, the grave's location may also reflect order within the social system. For instance, the male head of the household is buried near the Isibaya. Additionally, it was explained that ancestral graves within the homestead offer the family protection. The continued relationship with ancestors is for the flourishing of family and the well-being of those who have passed. Thus, these established relationships play a fundamental role in psychological well-being and the sense of communality. The construction of graves also varies, but they are all regarded as sacred.

60. Removing the family graves from the homestead disrupted traditional practices where household members could commune with their ancestors by visiting their loved ones. The presence of ancestral graves within the homestead reflects an integration of ancestral relationships into the family's daily lives, while the relocation of graves symbolises a severing.

61. Second, the exhumation of graves was experienced as a horror that was said to have not been foreseen. “At first, when we were relocated, they did not tell us that they would exhume the graves. It was only later that they said they would. They only came later to say, ‘we may need to move the body,’” explained Resident 4.

62. Third, the magnitude of the event was said to be catastrophic. Multiple ancestral graves were removed. For instance, one person interviewed reported that her family had up to 30 graves had been removed.

63. Those whom I interviewed found the process to be psychologically disturbing. Several of those I interviewed had visible emotional facial reactions, were tearing up or crying when describing this process. Some of those interviewed likened the process to a wound that could never be healed.

64. Most of those interviewed reported that they had no option to remain behind as the license to operate was already granted. “It was very painful, and I had no choice but to agree to be relocated. I couldn’t leave them there to be bulldozed. My whole family was hurt. We had a general discussion about it, which was painful. My family could not speak, and people started crying when we did” (Resident 7).

65. They expressed that the exhumation process was frightening: “I was very scared. I felt that I had made a mistake to move. I was afraid to see the bones of my family again. It was painful seeing this” (Resident 4).

66. Forth, those interviewed were exposed to seeing the exhumation of their loved ones who had been buried recently. For instance, one mother expressed how she had to watch her daughter exhumed two months after being buried. Another interviewee reported that he had a family member who buried his wife three months before exhuming the bodies, declaring it a significant stressor. One member’s sister saw her child being exhumed, saying, “that was traumatising”. Resident 25 described that people cried when returning to their homes after the exhumation and reburial. Some women were waiting at home preparing food and said that the whole episode was “painful” and “people were distraught” (Resident 25).

67. Today, the process is still complicating the grieving process of those interviewed. For example, one resident explained the events as “painful” and “terrifying”, stating that she “could see everything” (Resident 25). She continued that it was “terrifying and the first time to see bodies exhumed”. Several of the participants reported that they saw the bodies directly and others witnessed the broader traumatic process. In my expert opinion, these are highly traumatic events.

68. The process was said to have been managed by an external contractor, and those who were exhumed were moved to a location on a nearby hill identified by authorities. “Four people were buried where the mine is today, my mother, my father and my siblings. Those buried there have been moved in an undignified way...it was painful to see what was happening. The broader process was dehumanising...Everyone cried that day, seeing what was happening. It was difficult to watch our family being reburied...I still feel today that is painful,” Resident 27 speaks while visibly holding back tears.

69. The process was described as being sacrilegious. Despite families not wanting to go through with the process, elders of the family asked to be involved in the exhumations, feeling a sense of responsibility. Even though exhumation is not allowed, family members integrate traditional rituals attempting to reconcile the horrors. Reed mats that are traditionally used to bury the dead in, plants used to move the spirit of the dead from one place to another (for instance, if a member of the family died away from home) and the sacrifice of a number of goats or cattle depending on the status in the family and community were attempts to try and resolve the horror. It was said that people were given little money and had to find the means to source new blankets and reed mats to rebury their loved ones in. It was uncoordinated and people expressed that the process was undignified. It was said that the mines only gave one goat and a cow to the various households, which “was not how things are supposed to happen” (Resident 25). For example, a person interviewed told me that the family's stature depends on how many goats and cows are required. For instance, you cannot use one goat and a cow for 30 family members. The process was experienced as a sacrilege, and the approach toward compensation by Tendele for the purchasing of reed mats or goats was viewed as woefully inadequate, disrespectful, and hurtful. It

contributes to the sense of institutional betrayal where those responsible for wrongdoings also respond inadequately to rectifying the wrongs that have been done. Additionally, Resident 27 remarked: “It [the exhumation of graves and reburial into unmarked graves] has major implications on spiritual wellbeing. Many of the family did not attend...We also do not know who is there [as the graves are unmarked]. I have not been back for some time.”

70. Those who witnessed the process said that it was horrifying. Some saw semi-decomposed bodies removed, while others reported diggers plunging pickaxes into the graves and returning with bones stuck on the picks. One resident said that he saw the skull of his loved one attached to the end of the pickaxe. “It was painful to see the people digging, putting their picks into the graves...I remember seeing one come up with a person’s skull stuck in the pick. It was a painful experience,” Resident 18 explained. Those who could afford reed mats, rolled the bodies and bones into them and, those who could not, put them into plastic. Additionally, some of those interviewed said that not everyone’s bodies and bones had been exhumed and that the mine had started operating where their loved ones were still buried. It was also reported that “some bones were also left behind” (Resident 18).

71. This traumatic process occurred while families were still recovering from being dislocated from the homesteads.

72. The second stage of this traumatising process is related to the reburial of family members in unmarked graves. It was explained to me that no one was given tombstones, and the whereabouts of family members were unknown. Residents felt hurt and angry about what had happened. A resident explained: “There is a mess there, and we don’t know who is there.”

73. Another resident (7) described: “Today, it is even worse. We have lost people and cannot identify where they are. My father is lost, and I can’t find him. We have seven family members’ graves in total that have been lost”. Another resident (18) similarly described: “Even my father, I don’t know where he is.” They continued, “when you stand there, you talk to people you do not know... The mine gave no tombstones.”

74. The disruptions to ancestral connections threaten intergenerational ways of being and becoming in the world²⁹. “Today, it is difficult because traditionally, you must speak to your ancestors, and I cannot commune with them. My family cannot commune with them,” an elder explained. Additionally, it was explained: “There is a large impact on the family. We used to have a close relationship, and now we do not follow our culture. We are supposed to burn impepho and follow the ceremony, but we do not do these things. We have not even been given an apology for what has taken place to cause this disconnection” (Resident 7).

75. Some families have sought professional help from Sangomas to identify the graves of their ancestors with the hope of identifying their family members. However, it was reported that many people are too scared to visit the gravesite because of the sacrilege that has taken place. Resident 7 also explained: “We knew who everyone was and had a close relationship with them [when they were still buried in the homestead]. They are all mixed now, and I do not know who is there. This [the exhumation of graves] has never happened before. I don’t go there anymore because spiritually, it can cause significant disturbances if you also speak to the wrong person, as this spirit can follow you back home and haunt the family.” Most

²⁹ Hartmann et al., 2019

people interviewed were afraid that communing with the wrong spirit would mean that this spirit would follow a person home and haunt the family. Some of those who did not agree to move their graves from the site have fenced them off to protect them but are fearful of visiting the sites still and fear that the mine is disturbing the ancestral graves. This disturbance of ancestral spirits can bring misfortune and illness to families, and, additionally, it creates a sense of ancestral disorder.

76. Most people's reciprocal relationship with ancestral spirits is severed due to the destruction of ancestral graves and unmarked gravesites. The traumatic process has had deep-rooted and long-lasting consequences.

77. Intergenerationally, there are also unforeseen impacts. Some of which are related to the hindering or loss of traditional culture. "There are also traditional rituals that are supposed to be done. You are supposed to report to the family; I have not done that and will be haunted by this. My children will be haunted by it and will need to do the rituals on my behalf" (Resident 16). Resident 16 explained that "Report to the family" means that they are still supposed to visit ancestral graves to spiritually commune. Rituals may must be conducted to ensure the wellbeing of the family, as well as ancestors.

78. It was said that community members tried to resolve the issue mentioned above by asking where their loved ones had been buried and asking for compensation to ensure that rituals could be conducted to help address the social and ancestral distress. Yet, when Tendele's managers and traditional authorities were approached, it was said that they received on several occasions promises that "the problem would be solved" (Resident 7), but that these expectations were never met.

79. It is difficult to verify these events because of their very nature. However, it is undeniable that these atrocious events are collectively traumatic and of epic proportion³⁰. Today, communities are still confronted with these traumatic memories and the unresolved issue of unmarked mass graves.

5.2.1.2 Destruction of Izibaya

80. In my expert opinion, the destruction of the Isibaya (cattle Kraal) within the homestead also deserves special attention. It was another major contributor to psychological distress today that has not been compensated.

81. While Isibaya are where traditionally cattle and goats may be kept, the significance of this stressor may also be overlooked by those who are not culturally sensitive to the importance of Izibaya to families.

82. The Isibaya has significant spiritual and cultural meaning. For this report, I will only highlight some of what was described to me. According to those interviewed, the Isibaya in the traditional home plays a central role in the family and broader community.

83. First, "Cows are everything in the family... If something bad comes to your family, the cows will get sick instead of your family members. If you see the cow is sick, you need to consult [with the ancestors]." Thus, cows (including having a Isibaya) protect the family from becoming sick. Additionally, they symbolise traditional ceremonies, such as burying someone or celebrating marriage.

84. Moreover, the Isibaya represents manhood, and a person's social identity may be interconnected with having a Isibaya. For example, Resident 18 reported: "A person feels strong having a Isibaya".

³⁰ Further information about the grave exhumation can be found in Skosana's unpublished works and Edelstein (2018).

Conversely, the elders also explained losing their Isibaya felt like losing their manhood and a part of himself. “If you do not have a Isibaya, people disrespect you.” So, the loss of the Isibaya also translates to a loss in social status.

85. The Isibaya is a significant site for the bond between herdsman and their cattle and goats, a crucial relationship to identity and a sense of self-worth. One resident said that he no longer had the same relationship with his animals because of the destruction of the Isibaya. He experiences a loss and shame associated with this absence in his life.

86. According to those interviewed, there is also a very different value to Izibaya built with stones compared to those made with logs, let alone wires and corrugated iron. Those built with rocks, followed by harder woods, are of more value and status. Residents reported that they had devoted considerable time and energy to making the Isibaya as the wood and stones were collected from surrounding areas and carried home. Some of those whom I interviewed said that they took great care to build the Isibaya with the desire that they could give the Isibaya as part of their legacy to future generations. Thus, the Isibaya was also said to promote intergenerational wealth and, in turn, the loss of a Isibaya was considered to be significant socio-economic loss.

87. The intergenerationally of the Isibaya is also significant for those following traditional beliefs. The Isibaya is said to be where the male elders commune with ancestors; thus, the Izibaya's destruction has negative spiritual implications. For instance, when there is a ceremony, the male elders must go to the Isibaya to provide an offering and speak with the ancestors. Additionally, it is a place of spiritual rest for male elders where they can continue their relationships with the family after death. For example, one resident emphasised: “It was hard work...my wish was to die there, and my children would bury me at the Isibaya” (Resident 19).

88. In my expert opinion, the destruction of Izibaya in ancestral homesteads is experienced as a horrific event that has largely been overlooked. It causes significant spiritual distress and has contributed to unwanted identity disruptions. All male residents interviewed who had a Isibaya destroyed reported consequential loss and sadness, as if a sense of pride and meaning linked to the Isibaya had been robbed from them.

89. The Izibaya today is a site where psychological wounds are reflected. Some residents reported that they felt unable to create the Izibaya again, expressing disruptions in their sense of meaning in life. Others echoed a sense of demotivation and avoidance, saying they did not want to create a Isibaya again, fearing they would be relocated again. Some of those who recreate their Izibaya expressed that they were not as they were, feeling spiritually empty. Additionally, there was a great sense of shame and guilt expressed about what had taken place and the current conditions of Izibaya. Perhaps most importantly, the destruction of Izibaya contributes to psychological distress due to the unwanted severing of ancestral relationships, disruptions to intergenerational wealth, and the impossible desire to be buried at ancestral homes. Additionally, the destruction of Izibaya is interlinked to the exhumation and desecration of graves that were addressed in the previous subsection, as a new Isibaya does not have the male ancestors buried there.

90. The psychological adversities suffered due to the Izibaya' destruction and the perceived lack of adequate reparations are unresolved. The issue was said to have been taken to the traditional authorities multiple times, but those interviewed perceived the outcomes as inadequate. Those I interviewed reported that they had been inadequately compensated for the destruction of Izibaya, and some received only fencing that was said to be insufficient and culturally inappropriate. One resident who previously had a stone Isibaya reported that he tried to resolve the issue, asking the mine to bring the stones to the new location as people were using the rocks for tombstones or buildings. Still, he said that the mine would not do so.

5.2.2 Loss of Livelihood and Intergenerational Wellbeing

91. In my expert opinion, the destruction and loss of subsistence farming areas and grazing land contribute to the collective trauma. One of the significant psychological impacts on those interviewed was the loss of livelihoods and intergenerational wellbeing that has led to daily struggles with financial insecurity and, for most, impoverishment.

92. Those interviewed also reported that the mine created a sense of dependency, destroying former livelihoods and forcing those who did not want mining to be dependent. It was also explained to me that while the mine promised “prosperity,” very few families benefited from its existence. Many interviewed families had very little income relying on grants or selling vegetables, sweets, or making reed mats at markets. Today, there are more restrictions on daily life and families expressed struggling with poverty.

5.2.2.1 Fields and Foraging

93. The surrounding area was critical to families who used it for farming, grazing land for livestock and foraging local plants. As discussed, fruits, grains, leafy greens, marrows, roots, allium, edible plants, sugarcane and plants with medicinal and cultural were cultivated. Additionally, forests were accessed to collect firewood for cooking and heating.

94. Many interviewed described an abundance of food, saying it was critical for their family and community's flourishing. Harvests and foraged food and medicinal herbs would be used to nourish the family, while the excess was sold in local markets. The surplus of food sold on the market was used to pay for school clothing or fees, for instance. Additionally, produce would be traded, and it was said that hunger was not as significant problem as it is today.

95. Several families lost fields, subsistence farming, and grazing land due to mining. These families included those that have been relocated and families who had not but who had lost land and grazing area due to the establishment of the opencast mine. A standard narrative was described, which is as follows: “We were gathered together by the traditional leaders, Nkosi [chief], and told that the mine was coming and that the mine should be given the land to the mine” (Resident 23). It was described to me that one family member from each household signed the agreement for relocation and was promised a job in the mine. People described an internal conflict as the fields brought security but were under the impression that they had little choice but to sign. Some interviewed said they agreed, fearing the inevitable loss of their fields as they already saw the land clearings. The jobs for family members were also attractive, and some

perceived that this would help amplify the family's wealth, thus, building on the intergenerational wealth accumulated. Unfortunately, this was not the case for those interviewed.

96. The magnitude of loss had not yet been quantified when conducting the current assessment. Yet, it is evident that large fields that supported the family were destroyed. For example, images 2, 3 and 4 in subsection 5.1 *Community* and image 5 below show the scale of some of the farming areas that had been destroyed. It was also said that the changes also saw the collapse of local markets: "Some of the markets that we had we do not have any more" (Resident 4).

Image 5. Homestead's crops before and after mining (Photo source: Google Earth 2022)



97. The changes were dramatic. The fields were lost while successive waves of relocations were taking place. While families were trying to re-establish themselves after being removed from Areas 1 and 2, they were also met with a new reality of not having access to land or seeds to revive subsistence farms. For example, Resident 25 expressed: "we never used to go hungry, but today we are hungry". Resident 25 explained that she used to have a field that her family sustained themselves on, but since moving into the cluster housing, she does not have land or access to water and cannot feed her family. "We have difficulty with everything and have become dependent on buying food at the markets when we used to plant our food...The mine bulldozed all our fields" (Resident 25).

98. Those who had lost fields reported that they either did not have land to replant or that the conditions where they lived now were not ideal for planting (e.g., rocky terrain, lack of land or water insecurity). These new conditions made it difficult to re-establish vital livelihoods.

99. Resident 16 described: "When we were hungry, we used to go to the garden. Today, we are only hungry. We have no land and nowhere to plant". Resident 16 reported that the mine had a "terrible impact" as he had "worked so hard" to establish the sugarcane fields that he even managed to pay for his daughter's university expenses. Even when there were droughts, he explained that there were systems to help alleviate the suffering. For instance, Resident 16 reported that some farmers used to get support from the sugarcane growers association, but today they do not have access to this mechanism. So, the loss of fields and broader social networks with these food and economic systems is devastating.

100. Families I interviewed generally felt that their personal and family development had been interrupted by what had happened. For instance, one resident (Resident 20) described: “here I can’t do anything. I feel that I have been stifled”.

101. It was explained to me that the mine placed additional stressors on families. For instance, the school was moved further away from their community for some households, and a mine restricts access to one another and community resources (e.g., water, schools, grazing land, fields and churches) because its size and geographic location split communities. These households now need to pay for transport to school, where previously they had not been required to, thus, placing additional financial stressors on the household. The same is valid for purchasing necessities, where people were selling goods in their homes, but today, these families have been relocated away from them.

102. People also stopped planting some seeds due to the historical droughts, the restructuring of society around the mines, and the proximity of the mine to the rivers. Those who have remained on the fence lines of the mine also reported that their vegetables would not grow anymore, were unhealthy, and feared toxic contamination. For instance, a resident (Resident 28) described: “I stopped planting [food] because all the plants are dying because of the dust”. It was reported that the river “does not have clean water anymore owing to how close it is to the mine. The river is also full of rubbish” (Resident 17).

103. Beyond the loss of fields. It was also reported that some traditional plants are challenging to find. “The mine has destroyed indigenous plants, and some are no longer growing around the mines” (Resident 4). Today, it was reported that finger millet (Amabele) is difficult to find and no longer grows along the rivers as it used to. People now need to travel further away to find traditional and medicinal plants, such as 1) *Aingwavuma* (used to treat stomach problems or relieve coughing); 2) *Mphafa* (used for burial practices and can be used for transporting the spirit of someone if their body cannot be found; 3) *Mtole* (used as an enema).

104. Additionally, it was said that forests had been fenced off where families used to harvest firewood. These access barriers have meant that people must purchase wood or travel further away to harvest wood, putting additional financial pressure on families. To a certain degree, the restructuring of relationships to land through fencing, relocations, and environmental degradation has severed historical community ties to the land, creating considerable psychological distress.

5.2.2.2 Cattle, Goats and Chicken

105. Cattle and goats were as important livelihoods as subsistence farming and foraging. Similarly, residents described some of the animals were consumed by the family. At the same time, a portion was also traded to supplement household goods or sold for income that would be used to buy necessities or pay for transport to and from school.

106. Although the magnitude of loss has not been quantified at the assessment, it was consistently reported that extensive grazing lands were lost. Additionally, almost all interviewed said that some of their livestock had died or been harmed due to the mine operations. In my expert opinion, the perceived negative impacts on livestock have had an adverse psychological effect on those interviewed.

107. Those interviewed reported that the opencast mines are located on lands once used for grazing, communities have been fenced off from the areas, and much of what was once grazing land is today an

opencast coal pit. Moreover, the mine has split different areas and, thus, made it more challenging to access some grazing areas. Additionally, some water sources that herders once used were said to have been fenced off. Additionally, some families who used to have access to good grazing areas were relocated and now live in areas where herding is said to be more difficult.

108. These poorer conditions made it more difficult for herders to adapt. Herders consistently raised that there were difficulties feeding their animals. A resident described: “I feel sorry for the cow that there is no grazing land.” Herders expressed a sense that their conditions had worsened for them and their animals. The loss was also internalised, feeling a sense of shame and that their place within the community had been devalued. Their unaddressed concerns also result in a sense of marginalisation.

109. Almost everyone I interviewed who had animals reported they had lost some. People described how their cows died at first, struggling to adapt to the new conditions after being removed from their land. Additionally, community resources have also been moved. For instance, it was also reported that the dip for animals has moved and now is difficult to access.

110. Some also reported they were concerned that their animals had died from the blasting. Herders who were interviewed also raised significant concern for the health of their livestock, declaring that the conditions they were living under were not good. For instance, some herders reported that coal would be found in the stomachs of the cattle or goats when slaughtered.

111. People also reported that some animals still found their way onto the property of Tendele, but the herders could not enter. Their animals would go missing, which they would attribute to mine-related fatal injuries (e.g., getting stuck in the mine, falling into a hole, being hit by fragments during blasting, or toxic contamination). Those who said they had livestock lost in the mines noted that it was challenging to report.

112. Some had received compensation from the mine. However, one resident reported that the amount paid was R10,000 and said that this did not translate to the market cost for purchasing cattle, which he said was approximately R15,000 market value (Resident 17).

113. Alarmingly, some people were said to have been arrested for “trespassing” on the mine grounds when they were looking for their cattle.

114. The changes have also frustrated meaning-making processes and contributes to psychological distress. These testimonies are difficult to validate in an assessment such as this. However, it is clear that they create difficulties and cause daily worries for herders. Fences, access barriers, pollution, the lack of land and other hardships undermine a once empowering vocation that affirmed identity and supported the broader community.

115. Generally, there was a perception that the changes deteriorated living conditions. Resident 4 explained: “Life got far worse, and I used to think that I wish I had died, and now my children are suffering”. They continued: “I worry about my children today. I worry if they will find work”.

5.2.3 Other Housing and Community-Related Issues

116. In my expert opinion, the multiple ongoing housing-related issues reported to me contribute to the collective trauma and chronic stress.

117. First, those who moved have suffered multiple losses (addressed in the above sections) and struggle with new challenges. Several families relocated to Machibini were moved first into prefabricated housing

and then into what can be described as cluster housing. People interviewed said it was challenging to live in the new place because houses were too close and overcrowded, adversely transforming the sense of communality.

118. The families living in these houses reported that the conditions were poor, they had limited space to create subsistence farms, and the houses did not have room for a Isibaya.

119. Most of those interviewed were unhappy with housing conditions and where they relocated. It was evident that some of the house's roofs were rusted, and windows were boarded up with corrugated iron or wood planks. Impoverishment made it challenging to maintain the home.

120. Second, those not relocated by the mine said they were not well informed that they would be living on the mine's fence lines. "We were not explained about the mine. We just saw it coming," another resident (Resident 17), who today lives near the mine and was not relocated, explained. "We were told that we were not to be affected by the mine and were not moved". Even though the bulk of the families in Area 1 and Area 2 was moved, there are still people living in these areas who refused to be relocated or were not given the option to move. Those who remained in the areas where communities were relocated reported feelings of neglect, being "all alone" and unrecognised. Some of the residents who stayed behind also expressed fear for their safety and reported robberies. "We used to feel safe and secure. Since the mine came, we do not feel safe anymore," Resident 1 highlights. She continued: "We feel cut off from people even now." They face several challenges, including social isolation, security concerns, and adverse environmental impacts, which will be addressed more in the section on *Environmental Suffering* that follows this current section.

121. Third, all residents reported issues with blasting. Some describe having issues with the noise, as many houses are close to the mine. Yet, the main problem expressed was related to damages to the homes. For instance, one resident reported that her home collapsed after blasting. She explained: "I moved here to be closer to the school for my children...my house collapsed in the afternoon after a blasting day. I was outside at the time, and luckily no one was hurt...Today, I am scared when there is blasting...When it collapsed, the cupboard, tables and plates all broke. I didn't go to report it because you are just ignored."

122. Several people showed infrastructure issues, and it was generally viewed that these issues arose when the mine came. Before the blasting, it was reported that the houses stood unaffected by consistent environmental conditions that had spanned generations. Image 6 demonstrates some infrastructural issues that the person interviewed attributed to blasting. It was also reported that when the blasting damaged people's houses, it was said to them that the foundations of the houses were "inferior," thus, shifting responsibility onto the owner of the house by blaming traditional buildings methods that were said to have weathered the elements over generations until mining came. This approach was perceived to be unfair, as the houses had not been built before mining was authorised. Resident 1 expressed: "The only thing the mine did was abuse us. Abuse us because our houses and windows are cracking".

Image 6. Damage attributed to blasting (*Photo credit: Garret Barnwell, 2022*)



I23. It was reported that while residents are mindful of one another, there isn't the same sense of community and belonging as before. For instance, Resident 25 said she must keep quiet if someone's dog enters her property because it is crucial to keep the peace, even though she is often internally upset about these issues. In the past, this was not an issue.

I24. It was also reported that the mine had splintered the sense of community with fences. Resident 3 attested, "I feel terrible to be fenced away from others. I feel stressed to be here, and I can't do anything anymore [to change this situation]".

I25. Resident 17 reported that most of the community was relocated, "leaving us behind". He also said that children used to walk to the school but now need to hire a car to get the children to school, which costs R170 per month, which is hard to obtain because of being unemployed. He continued: "Four children need to be transported. The mines have cut us off, and the fencing off communities has put significant pressure on the family."

I26. Additionally, safety was a concern. Resident 27 reported: "It is not safe for children to walk anymore and because the school is further away, we need today for transport" (Resident 27). "These days, walking around as a woman is also scary, and things have changed and are unsafe because there are more naughty people here. An issue like domestic violence and gender-based violence³¹ never used to happen, but today it does" (Resident 27).

5.2.4 Environmental Threats

I27. Although it is claimed that most people live within a safe distance from the mine, the psychological reality is devastating. Living in this mining area is living in a reality of land that once sustained life of all kinds has been gutted, transformed into a dust-stricken and rocky opencast coal pit that, for those

³¹ There are major gendered impacts of mining in Somkhele that are not addressed in this report, but are extensively detailed in Benya (2022) report *The Gendered Impact of Mining on Workers and Mining Communities*.

interviewed, is a source of environmental suffering. In my expert opinion, residents are exposed to several of these environmental stressors that contribute profoundly to the experience of collective trauma. These environmental stressors (e.g., dust, water insecurity, noise pollution, blasting and perceived toxic contamination) have psychological impacts that are inseparable from one another, compounding and accumulating over time. The following statement reflects these intersections and highlights the psychological harm associated with these chronic exposures:

“The animals that drink the water are also getting sick. It is black and polluted. No one follows up. We need research to understand what is causing deaths in our community. It is really stressful. There is noise 24 hours a day, and I don’t sleep anymore since 2007. The movers make a noise like a train over train tracks all night. There is also so much dust. It makes me feel abused” (Resident 26).

128. Resident 17 reported that living next to the mine is disturbing and that he “can’t do it anymore” and “washing becomes bad and is difficult, our houses are cracking, and the trees are black... It is also noisy”.

129. One of the most frequent complaints was about the inability to control dust. Dust from the mine is ever-present in the daily lives of those living in the opencast coal mining area. Psychologically, the mine transgressors the boundaries of the homestead through its creation of dust (as well as other forms of environmental stressors). Produced by the mine, it is seen as an extension of the mine-related collective trauma. For illustration, one resident expressed: “The air quality is so bad, and it is coming to be winter now when it gets worse. The wind increases in the area, and I feel the effect on my body.”

130. The dust is insidious and finds its way onto every surface and through every crevice, gap and opening leading into the household. Coal dust accumulates on the windows, finds its way into household goods, and discolours fabrics. Several houses replaced their furniture, linen and curtains with darker colours to hide the dust.

Image 7. Demonstrating dust on household surfaces (Photo credit: Garret Barnwell, 2022)



131. Dust enters by wind through the windows, feet through the doors, and down the walls through cracks when it rains. Coal dust stains the home's interior and exterior walls, and when it rains, water mixes with accumulated coal dust on the roofs of houses to bleed black. Ochre soil is a darker hue the closer a family lives to the mine, and trees are visibly darker.

Image 8. Roofs bleed black. (Photo credit: Garret Barnwell, 2022).



132. Disease was said to feel omnipresent, and many people worried about dying. All those interviewed perceived that the mine was the cause of deteriorating health in the areas. A common statement was that “the mine brought sickness” (Resident 34). There are multiple examples of this. A resident illustrates: “My health issues are related to the dust. When there is blasting, and there is dust, I experience more pain,” referring to their struggles with pulmonary issues (Resident 1). Another resident explained: “when they blast, it makes my asthma worse. Everyone has some health issue in my family” (Resident 27). Another resident (28) illustrates: “I have a problem with my chest. I am always coughing and feel like there is something in my chest. I went to the doctor, who told me my lungs were affected by living near the mines. He did not say that it was TB...I sometimes get headaches, get dizzy”. Another resident (1) reported that she felt bad each day and had chest problems, “feeling a wound,” that would only become worse during blasting.

133. In the households that participated, people complained about respiratory issues, asthma, sinuses, dry nose, itchy skin when it was windy (and therefore dusty), shortness of breath, headaches, and fatigue. One person interviewed reported that when it is windy and dusty, their child will itch so much that they bathe themselves in Handy Andy to get rid of the itch. Almost all families reported these health-related stressors.

134. Additionally, many people interviewed reported that their or their family member's health conditions (e.g., diabetes, tuberculosis and asthma) were exacerbated by the environmental conditions around the mine, whether it be dust, blasting or noise. A resident illustrated: “After recovering from TB, it

is tough. I cannot walk far without struggling to breathe. It worries me a lot... When there is blasting, it feels like I am being poisoned. There is a terrible smell...my chest becomes tighter, and I have difficulty breathing. The hills of dust have also just been left, and there is no rehabilitation. The dust comes from the unrehabilitated places, and we are in the middle of them”(Resident 33).

135. The experience of health-related issues was said to be debilitating. For instance, Resident 33 said that he cannot go to the field when there is dust in the air and that he is incapacitated at home. Resident 1 said that she does not go anymore to plant vegetables because the dust makes it hard to breathe, exacerbating her health issues, and the plants that are covered are said to just die.

136. There is a constant fear about toxic contamination and the current and long-term impacts on health for all those interviewed. For instance, one elder described: “We do not know what the dirt is doing to our health. It smells bad a lot. When they blast, it smells terrible” (Resident 31). This pervasive sense of health insecurity is compounded by the fact that most families cannot prevent exposures (as illustrated by the insidiousness of the dust above) and do not have the financial resources available to escape these conditions by, for instance, moving away. Moreover, there is a conflict that families experience. While they do not want to move away from these burial places, they still feel the unbearable desire to do so owing to the intrusiveness of the mine in daily life.

137. Although it was said that the local clinic does acknowledge that these conditions may be related to living on the mine’s fence line, there is still an inability to limit exposures. One resident expressed: “many of the people interviewed explained that the clinic will ask where they live and the difficulties breathing have been explained to them as being owing to living close to the mining”.

138. People also felt ashamed about the conditions of their houses that were layered with dust. Some youth said that they do not invite friends over, as it was said to be embarrassing. One young woman explained that you always feel dirty and that people not living in the area did not understand how much energy it takes daily to keep the house clean. She expressed that you cannot wear white clothing and that she avoided inviting people over as a result. The dust is an environmental factor that increases the sense of shame and social isolation and deters the sense of communality. Youth, Resident 12, reported feeling “disgusted” by the place and always wanted to “isolate” herself. Other young people who I interviewed were torn between keeping tradition and the reality of living on the fence line of a mine, expressing that they did not want to be married on the homestead because of what they saw as dehumanising conditions.

139. Lastly, those interviewed also reported that the constant noise was stressful, especially the sound of machinery, shouting or blasting. This was said to occur in the early mornings and at night, disrupting sleep. Sleep deprivation is positively associated with adverse psychological outcomes³².

140. Water scarcity is another major issue that all residents reported. Water insecurity is linked to poorer mental health outcomes. Water insecurity is associated with a sense of loss, interpersonal conflict, material deprivation and uncertainty, worry of illness or harm, unfairness, failure, and a loss of opportunities and self-sufficiency³³.

³² Freeman et al., 2020

³³ Wutich et al., 2020

I41. Although water was previously readily available for household consumption, livestock and farming, it is not anymore. Even though some people had tap water, people complained that there is sometimes no running water for more than two weeks. People were moved away from the reservoirs, and some have reportedly become dirtied by mining operations. Furthermore, Tendele has also allegedly fenced off certain areas where livestock used to access water. Families were also moved further away from water sources, like the Mfolozi river, due to the relocations with the mining, making it more difficult for cattle raising, planting, washing, and collecting water. Although the theme of climate change was not explored in detail, some residents also expressed that they were worried about the reoccurring droughts, increased water insecurity and climate change. They worried about the future, especially since they already felt they were competing for water resources with the mine.

I42. Again, there was a constant fear of contamination and distress caused by the scarcity. “The water is black and polluted. People are dying, and no one is following up” (Resident 26). Resident 2 expressed: “You cannot drink the water because of the coal dust”. Another resident stated: “Water has become less accessible. Water is only delivered every two weeks [and these JoJo tanks are filled]. We need to buy water for ourselves. It is difficult because we live with small children...The goats also die from drinking dirty water and eating plants that are covered by coal” (Resident 28). Another resident (6) explained: “There are no water points here (referring to where communities have been moved to). We used to have a stream.” She expressed that she worries about water all the time, especially since she has a small child. The stream that used to run is “dry” and “filled with the rubble from the mine”. Some even reported having nightmares about not having water (e.g., Resident 26).

I43. Some residents reported feeling gaslighted³⁴ by the mining company. It was reported that when some residents have reported fears over water contamination, those that they report to will say that there is nothing harmful in coal dust and that it comes from trees. Additionally, residents who have complained about the intrusiveness of the dust and noise are said to be met with replies like, “you are living outside of the legal buffer zone and are not affected”. Although perhaps not malicious or intentional, this is still gaslighting as it undermines the significant psychological distress that these mine-related conditions cause.

I44. The water that some families have tried to harvest in rain tanks either bought or provided by the mine is also said to be contaminated by the coal dust. This was said to have also been in response to the growing water insecurity in the area owing to the disappearance of water and the mines fencing off some water sources. However, rainwater mixes with the dust and finds its way into these water sources. A resident explained: “Even though we have water, it is not clean anymore” (Resident 7). For example, image 9 shows water from one of the tanks. Although water is already visibly unclear when first poured, the accumulated dust in the tank mixes with the water and turns black when the tank is shaken. When it rains and circulation in the tank, drinking water was also said to turn black.

³⁴ Gaslighting refers to when a person’s concerns are undermined by someone else or entity by presenting a false narrative and underappreciating their experience. Gaslighting can lead someone to doubt their own sense of reality, can cause tremendous distress, and leave someone hurt. It is not necessarily intentional but can occur through a process of institutional betrayal.

Image 9. Contaminated water. (Photo credit: Garret Barnwell, 2022)



145. Some reported that they used to drink rainwater, but if they drink it now, they have stomach problems, attributing this to the sediment from the mine that now forms in the water owing to the runoff from the house's roofs.

146. Although the mines relocated some families, they are still clearly affected by dust, noise, and water insecurity issues. Some of those who were allegedly told that they would not be removed were moved later. Residents expressed that this process was highly stressful. For instance, (Resident 19) expressed that being told that they would not move while being subjected to dust and noise and then being moved later was "not easy". He reported that his family had to live near the mine with the dust intruding into his home for a long time. He eventually asked to be moved. He reported that the dust and blasting were unbearable to live with. However, despite being relocated, he noted that the dust still impacts his family when there is blasting. Many of those relocated were not moved outside of the affected areas.

5.2.5 Atmospheres of Violence

147. In my expert opinion, all these issues have occurred within the broader atmosphere of violence created over the years since the operation of Tendele. This atmosphere of violence makes it difficult to engage in public participation and resolve issues. Furthermore, it makes individuals and families incredibly vulnerable to further harm.

148. An extensive history of violence and intimidation suggests that MCEJO members are targeted for dissenting views³⁵. It is well known that several MCEJO members have been targeted for raising their discontent. Additionally, most of those I interviewed believe that Fikile Ntngashe was assassinated for her opposition to mining. Such violence has a chilling effect, and some of those interviewed reported that they feared reprisals when raising concerns. It is well documented that land and environmental defenders face

³⁵ Yeouns, 2021

significant threats in Somkhele³⁶. Psychological interventions have also taken place in response to such extreme events and mental health workers have attested to these experiences (Berry, 2020a, 2020b).

149. Currently, there is uncertainty about the future operations of the Tendele mine and community proponents of mining view MCEJO members and those supporting them as a threat. When there are strong interests to keep mines operating, those who raise concerns about mining (such as environmental health concerns, fears over expansion or discontent about how processes are handled) or actively resist the mine can be labelled a direct threat to mining. Those who are labelled a threat to mining are then deemed by proponents of mining as needing be silenced or illuminated³⁷. In turn, this labelling legitimises targeting where residents become excluded from decision making, marginalised within the community and at times violence is used as a tactic to silence opposition to mining.

150. Multiple examples suggest this is taking place. For instance, when going to protests, some residents reported that they would hear people in the taxi talking about them. It was reported that those members who threaten MCEJO members are known. Still, because they are perceived as being connected to those in positions of authority and living among the community, there is a perception that there is little in terms of justice that can be done. In an atmosphere of perceived failures in the justice system, some MCEJO members have received direct threats and have gone into hiding for some time, worrying about their safety.

151. Additionally, people reported having their personal details shared in public spaces without their consent, public shaming and harassment, family members being threatened, threatened by private security, and the community for their views about mining or relocation activities of graves. Some reported feeling discriminated against for their beliefs and viewed as being “backwards” or “anti-development”. Moreover, those interviewed raised that it is difficult to share their concerns because you may be excluded from opportunities from the mine if you do. Several residents expressed feeling scared for their safety, and considering that many of the households are occupied by elders, they can also be seen as highly vulnerable.

152. Communities use protest to bring a spotlight to concerns, and communities must have access to such means. When asked about the police, some stated that the presence of the police was reassuring as members were concerned that they would be targeted for participating in protest action against the mine. However, there were reported cases where permission to protest was not granted³⁸. These administrative barriers can hinder public participation and contribute to further polarisation³⁹.

5.3 Personal Psychological Injury: Individual Impacts of Collective Trauma

153. While this is a shared collective traumatic experience, everyone will present slightly differently at an individual clinical level. The following section focuses on some of the main presentations of psychological distress, mainly continuous traumatic stress disorder, depressive and anxiety reactions.

³⁶ Lawlor, 2021; Lawlor et al., 2020; South African Human Rights Commission, 2016, 2018, 2020a, 2020c, 2020b; The Mail & Guardian, 2022; Yeouns, 2021

³⁷ Menton et al., 2021

³⁸ Human Rights Watch, n.d.; Yeouns, 2021

³⁹ Duncan, 2014

5.3.1 Continuous Traumatic Stress Disorder

154. The psychological impacts of these traumatising and stressful events are profound. There are numerous studies which provide ways of thinking about trauma reactions⁴⁰. Trauma theory delineates common features observed in the way the body-mind reacts to sudden, unpredictable, shocking events regardless of the context and meaning of the traumatic event⁴¹. Such events are outside the range of ordinary human experience and are unbearable in their horror and intensity because they violate physical and psychological integrity. Significantly, eighty-five percent of people interviewed met the criteria for post-traumatic stress disorder, and twenty-eight out of the thirty-three people who answered the PCL-5 were above the cut-off, indicating probable post-traumatic stress disorder. Even though the criteria for post-traumatic stress disorders is met, the trauma exposure is not 'post' but, rather a chronic situation. Thus, continuous traumatic stress disorder⁴² would be more clinically accurate owing to ongoing stressful and traumatic exposures. Nevertheless, both post-traumatic stress disorder and continuous trauma stress disorder reflect the direct imposition on the mind, neurobiologically and psychologically, of the unavoidable reality of agonising events which have been experienced and remembered without mediation and psychological processing. The imprint of the traumatic event comes to dominate the person in that subsequent stressful life events are perceived in the light of the prior trauma⁴³. Within the last month, eighty-five percent of those interviewed met the following criteria for continuous traumatic stress disorder (and post-traumatic stress disorder⁴⁴).

155. **Criteria A:** The majority of residents interviewed met Criteria A, which is being exposed to an event or situation (either short- or long-lasting) of an extremely threatening or horrific nature. All those interviewed attributed the distress they experienced to one or more of the issues previously described and the broader description of collective trauma. It is challenging for anyone to heal when major continuous traumas and stressors continue occurring and when the need for safety and a sense of security in one's environment is not guaranteed. Unlike some traumatic events that remain an event in the past, the chronic stress of living in the opencast coal mining area is said to be all-encompassing for those living with the trauma.

156. **Criteria B:** The majority of residents interviewed met Criteria B, which is the persistent remembering or "reliving" of the stressor in intrusive "flashbacks," vivid memories, or recurring dreams, or in experiencing distress when exposed to circumstances resembling or associated with the stressor. Significantly, all residents reported repeated and unwanted memories of the stressful events associated with circumstances around opencast mining in the last month. These were all vivid memories of what took place and respondents were either clearly distressed when retelling their stories or, what is common in long term chronic stress, experienced a flattened affect⁴⁵. More than two-thirds of those interviewed said

⁴⁰ Caruth, 1996; Edelstein, 2003; K. Erikson, 1976, 1995; Garland, 2018; Herman, 2015; Kaminer et al., 2018; B. A. Kolk & Fisler, 1995; Mollica, 2008; Stevens et al., 2013; Straker, 2013; B. van der Kolk, 1998; B. A. van der Kolk, 1994; Vyner, 1988

⁴¹ American Psychiatric Association, 2015; Lingardi & McWilliams, 2017

⁴² Kaminer et al., 2018; Stevens et al., 2013; Straker, 2013; Trotter, 2022

⁴³ Kaminer et al., 2018; Stevens et al., 2013; Trotter, 2022; B. van der Kolk, 1998; B. A. van der Kolk, 1994

⁴⁴ ICD-10 criteria for post-traumatic stress disorder is used here as continuous traumatic stress disorder has not yet been included in the World Health Organisations' International Classification of Diseases Tenth Revision.

⁴⁵ World Health Organization, 2022

they had experienced disturbing dreams about these stressful events. For instance, Resident 6 expressed that they have a recurring nightmare about being told by the traditional authorities to move. Several residents also explained that they have recurring nightmares about falling into holes in the mine, losing their cattle or being stuck within the mine and unable to get out. Even after calling the security, they remained despondent in their dreams. Some also reported that they dreamt that the mine was underneath their home and that the ground was giving way, engulfing their home and the whole family. Concerning the atmosphere of violence, some expressed feeling insecure in the evening and having nightmares of being chased by people “who want to kill me and strangle me” (Resident 17). Residents also reported scarcity nightmares, where things like food or water were lacking and they could not feed their families. Several of those who reported these nightmares said they would wake up in the evening in sweats or with their hearts pounding. Mining is so intrusive that it pervades dreams, which residents fear they have no control over. The mine as a symbol in dreams was pervasive, intrusive, harmful and disturbing. Nightmares reflected anxieties about not having control, loss and mourning, among other traumatic features. These nightmares were said to have started after the traumatic events associated with the operation of mining.

157. Criteria C: The majority of residents interviewed met Criteria C, which is exhibiting an actual or preferred avoidance of circumstances resembling or associated with the stressor, which was not present before exposure to the stressor. All those interviewed said they attempt to avoid reminders, like going back to or looking at the opencast pits where their homes once stood or visiting the unmarked graves where their family members have been reburied. Most of those interviewed also reported that while there are efforts to avoid reminders of such memories, they cannot, owing to the chronic nature of the stress within their environment that places them under great strain. These memories come in the form of distressing dreams, intrusive thoughts about what has occurred or being triggered by external reminders. The reality of living on the fence lines of coal mining is that those interviewed cannot escape these unwanted memories as the mine’s intrusive dust, the reminders of being fenced off, the noise of blasting or machinery working through the night, or the smell of coal in unrelenting. The empty pits are experienced as daily reminders of the loss.

158. Criteria D: The majority of residents interviewed met Criteria D, which is meeting either an inability to recall, either partially or completely, some important aspects of the period of exposure to the stressor; or, having persistent symptoms of increased psychological sensitivity and arousal (e.g., difficult falling or staying asleep, irritability or anger, difficulty concentrating or exaggerated startle response). One in two people reported having some challenges remembering parts of the events, which was the least reported symptom congruent with post-traumatic stress disorder. Residents said it was “impossible to forget”, emphasising the severity of the events and the difficulty of escaping reminders. There were also strong arousal responses. Most of those interviewed reported feeling very alert, watchful or on guard (58%) and easily startled (47%). When reminded about the stressful events associated with mining, those interviewed reported having strong physical or emotional reactions to the events. Residents would often tear up when discussing the dislocations, exhumations and the unmarked graves, and they were visibly upset by what took place. Those interviewed said that whenever they thought about the

changes and loss, it was like a wound that could never heal, reflecting a sense of vulnerability and insecurity. Those interviewed also reported having stress reactions like a pounding heart, chest tightening or difficulty breathing when having intrusive thoughts or being reminded of the events, suggesting an anxious response.

159. Trauma can also transform how a person relates to life and loved ones and can inhibit the sense of flourishing. Most of those interviewed reported a loss of interest in activities that they used to enjoy (88%), difficulties experiencing positive feelings (73%), and feeling distant and cut off from others (79%).

160. Although all of those whom I interviewed attributed the cause of their distress to the mines and the failures of local leadership to protect those affected from harm, those affected by the experienced trauma can internalise blame, feeling ashamed and guilty about what has taken place. This was also evident in those who I interviewed. Three-quarters of those interviewed reported that they blamed themselves. Although feeling betrayed by those they entrusted, they also experienced a sense of failure, self-blame, responsibility and critical self-regard, internalising systemic failures. Additionally, the vast majority (96%) also experienced strong negative feelings of fear, horror, anger, guilt or shame related to the past traumas and current stressors in the last month.

161. Additionally, most people reported having irritable behaviour, snapping at their loved ones, feeling disconnected sometimes, and noted some anger outbursts.

162. The current trauma and stress was seen as negatively impact cognitive performance, with most people reporting difficulty concentrating (67%). Additionally, those interviewed reported disturbed sleep (78%) and poor sleep is highly correlated with poorer mental health outcomes⁴⁶.

5.3.2 Depressive and Anxious Reactions

163. Psychological reactions to stress and traumatic events are hardly neat, and in most cases, we can expect overlaps between post-traumatic stress reactions and other psychological responses. Most of those interviewed also reported mixed depressive and anxiety reactions. Depending on the individual case, these could either be mild reactions or co-existing responses where some individuals' battle with trauma simultaneously presents in depressive and anxious ways.

164. Depressive reactions: The PHQ-9 is a reliable indicator of generalised psychological distress and can also assist with screening for depression. PHQ-9 cut-offs can help indicate whether people meet the probable diagnosis of depression and whether their current experience can be considered mild, moderate, moderately severe, or severe. More than 90% of people interviewed were above the threshold meets the criteria for a probable diagnosis of depression within the last month. Significantly, 36% expressed moderate depressive symptoms, 31% reported moderately severe symptoms and 21% had severe depressive symptoms.

165. Anxiety reactions: I also assessed generalised anxiety using ICD-II diagnostic features. Most of those interviewed expressed having anxiety features that would be consistent with a diagnosis of generalised anxiety disorder. These experiences suggest significant levels of anxiety. Those interviewed described excessive levels of anxiety and worry, and some expressed difficulty controlling these

⁴⁶ Freeman et al., 2020

disturbances. Additionally, on average, those interviewed reported between three to four symptoms, including being easily fatigued, problems concentrating, irritability and sleep disturbances, and only a few reported restlessness.

166. Nevertheless, I am hesitant to offer a diagnosis of generalised anxiety disorder as this would suggest that there is an unreality to their experience of the threat. Instead, we can think of these anxiety reactions as being proportional to the chronic stressors in the immediate environment and fear for the future. However, what is difficult with anxious responses to such stressors is that there can be some permanency to the hyperarousal, which can mean that a significant amount of energy is being expended each day to manage anxiety and perceived threats⁴⁷. There is never a true sense of relief.

5.4 Place Severing: Collective Trauma as Epistemic Violence

167. In my expert opinion, collective trauma of this nature is also violence against intergenerational ways of knowing, practising and becoming, also known as *epistemic violence*⁴⁸ which can contribute to transgenerational trauma⁴⁹. The destruction of cultural knowledge, practices and ways of being in the world is experienced as a trauma. It can be transferred to future generations who carry a sense of shame, sadness, loss, anguish, spiritual distress, and experience other traumatic reactions as a result⁵⁰.

168. This expert report has outlined multiple ways in which damage has been done to the mutually constituting interdependent relationships that make up the sense of communality, shaping identities, knowledge, practices and local ways of becoming in the world. These include relationships to land, indigenous ecological knowledge, communing with ancestors, traditional burial practices and local farming and herding practices. The report has also highlighted how an ecology that provided sustenance (e.g., soil, water and an ideal climate) to families and, thus, affirmed the sense of identity and communality, has been turned into an mining area that is generally perceived by those interviewed as being worse off and is not considered to be life-affirming. Central to the harm done to ways of knowing, practising and becoming in the world is the obliteration and severing of people from of the place where the sense of communality has been established over generations, including local ecological knowledge, homesteads, ancestral burial sites, farms and grazing lands. Equally, the extent of ecological change, the traumatic experience and the continuation of unjust social arrangements make it more difficult to re-establish oneself, heal and re-create the sense of communality from the wreckage of mining.

169. Thus, what is perhaps most important in this report is that the collective trauma experienced concerning mining is also an intergenerational trauma that has done damage to the sense of communality – a particular cultural identity in Somkhele – adversely impacting how cultural knowledge, practices, and becoming in the world are transgenerationally shaped, transferred and retrained. Some residents made sense of their situation, believing that they had been cursed because of the destruction of graves and ancestral dislocation, and felt that the ancestors had abandoned them. From my experience, these issues are likely to not only remain within this generation but also promote legacies of intergenerational trauma,

⁴⁷ Vyner, 1988

⁴⁸ Menton et al., 2021; Santos, 2015; Sonn & Stevens, 2021

⁴⁹ Barnwell et al., 2021; Hartmann et al., 2019; Million, 2013

⁵⁰ Barnwell et al., 2021; Million, 2013

as seen in other contexts⁵¹. There was a strong sentiment that multiple issues that have been raised remain unresolved. Some members of the future generations are likely to experience considerable loss and pain for being dislocated and losing out on the sense of communality that once was rooted in the specific place⁵².

170. When interviewing one elder (Resident 14), she said she felt “sad spiritually”. Resident 5 expressed: “Our world has changed. It is no longer the same. I feel that things have changed for the worse...I have anger every day for the mine...The only thing mining cares about is profit, but they have damaged my soul”. Resident 6 expressed that things have changed, and while they believed that there had always been progressing, since the mine came “nothing is moving forward anymore.” Some said they would like to move away but felt they could not leave their elders to suffer in the current conditions.

171. It was explained that the worldview had changed considerably. The strong sense of communality that was said to be there before was replaced by an extractive logic where traditional values and practices were said to have been displaced for the profiteering of the mines. The worldview is no more about the sense of interdependency and communality but rather western ideals of progress through mining. As a part of this new logic, it was believed that the traditional authorities perceived co-optation by the mine was also viewed as having distorted how tradition is practised, and these failures are perceived as a loss to what was fundamentally essential to the sense of communality and psychological wellbeing. It is the traditional governance system that helped also bind the community together. The invasive western mining logic and resulting values changes and disillusionment with these traditional structures are making residents feel alienated and their sense of trust has been eroded.

5.5. Suicidality and Alienation

172. These assessments are intimate and tend to cover subjects like mental health and suicidality that seldom breach the surface of everyday discussions. In my experience, the psychological dimensions of experiences of dislocation, chronic stress and environmental harm are rarely discussed openly. Although the pain associated with these transforming events is not mutually exclusive to significant and abundant forms of resistance, solidarities and community adaption and resilience, psychological suffering often remains a private matter. Perhaps this is because of the normalisation of oppressive conditions, the fatalism that so many expressed that help endure these conditions, mental health stigma or masculinities (e.g., “men don’t cry”). The concealment of suffering through personal or cultural mechanisms means that we often do not see the extent of pain that people experience.

173. A third of people (33%) reported suicidality in the last month, thinking they would be better off dead or hurting themselves. Many of those who expressed this were elders who had lived through the adversities and expressed significant distress about the unwanted changes that had taken place. Those who voiced suicidality said it would be better off being dead than living under the current conditions they were subjected to owing to mine-related changes. They also expressed the significant loss, a sense of dispossession and displacement, assaults to traditional practices and ancestral connection and a strong

⁵¹ Barnwell et al., 2021; Edelstein, 2018; Erikson, 1995; Hartmann et al., 2019; Million, 2013

⁵² Barnwell et al., 2021

sense of hopelessness for the future. This sense of hopelessness was compounded by the experience of institutional failures, betrayal and injustice where options out of these conditions are limited. Residents interviewed expressed a sense of marginalisation and alienation as a result. Additionally, traumas involving human-induced disasters are more devastating than natural disasters and cause greater levels of morbidity. The more malignant and self-serving the behaviour of the other in a human-induced trauma, the more intense and distressing the hopelessness, helplessness and sense of disempowerment on the part of the victim⁵³. Anger and irritability were common to this sense of unwanted change and feelings of abuse. For instance, an elder explained: “I was so angry at the time” (Resident’s number redacted) [puts head down as he continues speaking about his desire at the time to end his life]. He continued, “We live praying now that something will change...I still feel the pain, although we have been living here for years in the current place”. These experiences of suicidality reflect the severity of pain that people experience. A person I interviewed reported: “I worry a lot. This has destroyed me. I wish that I could die, but the children rely on us” (Resident’s number redacted).

6. Conclusion: Clinical Implications

174. This expert report has described the collective trauma of those affected by Tendele mine. Through this analysis, I am of the opinion that conditions have become worse for these residents and their families since the mine was introduced. The report has shown how residents and their families have experienced multiple traumas and ongoing stressors, having devastating psychosocial impacts. The findings show that individuals interviewed experience severe psychological distress in response to these chronic threats, including continuous traumatic stress disorder and depressive and anxiety reactions. Moreover, the suicidality and sense of alienation among members reported is a concerning finding.

175. The experience of collective trauma is made worse by the sense of institutional betrayal where the mine is perceived as perpetuating harm, unfairly treating families, and not adequately responding to the severe traumas and stressors. Including, processes associated with relocations, the loss of land, ancestral grave destruction, the ongoing horror of unmarked graves, housing-related issues, environmental suffering, and the atmosphere of violence created. These unresolved stressors only perpetuate the collective trauma.

176. The collective nature of the trauma endured by those I interviewed necessitates systemic interventions to prevent further psychological harm and promote healing and recovery. Thus, the following recommendations are proposed:

- a. The physical safety and psychological integrity of those interviewed, and other potentially affected community members, should be urgently prioritised. Including chronic environmental stressors and the atmosphere of violence. This opinion is consistent with the literature⁵⁴ on collective traumas, where there is recognition that “even optimal adjustment to such environments is liable to carry costs to mental health and physical and psychological wellbeing.”⁵⁵ A comprehensive assessment should be

⁵³ Erikson, 1976, 1995; Linguardi & McWilliams, 2017; C. Smith, 2017; C. P. Smith & Freyd, 2014; Trotter, 2022; Vyner, 1988

⁵⁴ Erikson, 1976, 1995

⁵⁵ Stevens et al., 2013 p. 79

conducted, and it is suggested that the following areas are targeted to protect from sources of potential harm:

- i. Environmental threats and health-related concerns that contribute to profound psychological distress must immediately be prioritised. These interventions may involve halting extraction to avoid further exposure, remediation and rehabilitation of the surrounding ecology.
- ii. The atmosphere of mistrust, a sense of marginalisation and violence that has been created must be actively dismantled by enhancing participatory, distributive, procedural and corrective justice.
- b. Financial compensation for these psychological damages and the intergenerational nature of collective trauma should be considered. It is recommended that this amount should be estimated to support families to access lifelong psychological care. Considering that no public psychological services are being provided in the area, it is recommended that transportation costs also be considered.
- c. Health-related issues were some of the critical sources of psychological distress. An extensive health assessment is recommended to be conducted tailored to inform potential treatment for those exposed over their lifetime. This assessment should also include an evaluation of the local healthcare system and inform what health capacity needs to be developed in Somkhele. For example, public mental health care is absent. Additionally, those exposed should be monitored even after the mine has closed to assess for the emergence of lifelong health issues.
- d. Reparations and rehabilitation have been shown to support healing from collective trauma. Critically, reparations must be culturally appropriate, psychologically informed and perceived by the community as meaningful. The following areas for reparations that were identified by those whom I interviewed could be considered:
 - i. Identification and reparations related to unmarked graves.
 - ii. Reparations for damages done to the sense of communality and cultural loss.
 - iii. Reparations for the loss of farming and grazing lands, izibaya and livestock.
 - iv. Moreover, those interviewed wanted open access to water sources for their livestock and families, and desired that water sources that may have been damaged by mining are rehabilitated and water infrastructure improved
 - v. Most residents interviewed also wanted more meaningful and sustainable employment and vocational skills development in addition to the areas for reparations listed above.
 - vi. Some residents wanted to leave the area after experiencing years of struggle. It was voiced that financial compensation and support would be appreciated. There was a sense of urgency with people wanting to move away from the conditions that plague their daily existence. Alternatively, some wanted the mine to stop operating due to unbearable conditions.

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Annexure I: Translator/Interpreter Consent

TRANSLATOR/INTERPRETOR CONSENT

I consent to translate for Garret Barnwell, Ph.D. to assist with the data collection for the expert report about the psychological experiences of those of us living in the Somkhele area for All Rise Attorneys for Climate and Environmental Justice (“All Rise”).

I understand that:

- During the course of interpreting, I will refrain from expressing any personal opinions, or doing anything else that might be considered an activity other than interpreting.
- I agree to respect the confidentiality of any conversation I interpret. I will not communicate, publish, or share any information from the interviews with any individual or organization other than Dr. Barnwell and or All Rise.
- To the best of my ability, I will execute a complete and accurate translation/interpretation, not omitting or changing anything discussed in the course of the interview. I will not provide any explanation without a specific request from the interviewee or Dr. Barnwell.
- At no time will my personal opinions be allowed to interfere with any communication, and any unsolicited comments or suggestions will be made strictly to improve the quality of communication.

By verbally agreeing, I indicate that I understand and agree to the nature of translation and the purpose of this assessment, to the ways in which it may be reported, and to each of the points described.