

In the Shade of Coal

**A Micro-history of resettlement and the mining industry in Tete province, Mozambique,
2009-2018**

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DECLARATION

I, Bernardino António, declare that '**In the Shade of Coal: A Micro-history of Resettlement and the Mining Industry in Tete Province, Mozambique, 2009-2018**' is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Bernardino António

Signed: 

April 2024

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ABSTRACT

The emergence of the coal mining projects in Tete province displaced thousands of families from their homelands, where they have lived for generations. Thus, many scholars and civil society organisations have sought to analyse the socio-economic and environmental impact of the phenomenon. However, most of these studies have focused on the macro issues, preventing us from accessing peculiarities and details that can widen our understanding of the phenomenon. In contrast, my research, through a micro-historical approach, focuses on the singularities of the Vale resettlement, exploring a range of issues, such as the group of potters displaced by the Vale mining company to initiate its mining activities, the cemetery constructed by the mining company in Cateme and the conflict around the exhumation of the bodies from the old cemetery. However, besides the resettled communities, my research also analyses the ecological effects of the Vale mining activities on the local communities close to the mining site, which Nixon calls “Displaced without moving.”¹ The narratives and stories of the daily experiences of the local communities with the Vale mining project show that it has disrupted not only the lives, livelihood, and ecology but also the cultural and spiritual factors of the local communities in Moatize. Nevertheless, the power asymmetry between the various actors involved in the extractive industry (the mining company, local government, local communities and civil society organisations), dominated by the mining companies, has influenced how the mining issues have been negotiated at the local level.

Keywords: Resettlement, Mining industry, Ecology, Vale.

¹ Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), 19.

Introduction

Tete is one of the regions of Mozambique strongly marked by a history of resettlement, not only because of the Cahora Bassa dam project, carried out by the Portuguese colonial government in the late 1960s, but also because of two major resettlement processes implemented in the country, namely the colonial *aldeamentos* (villagisation) and the *aldeias comunais* (communal villages). While the former was implemented during the colonial era, between 1968 and 1974, the latter was executed by the Front for the Liberation of Mozambique (Frelimo) a few years after the independence.² Although implemented in two different contexts and by two distinct governments, the colonial and the independent, both resettlement schemes followed similar paths. As anthropologist Christian Geffray and historian João Paulo Borges Coelho have argued, the resettlement schemes ignored the local community's perspectives, culture, tradition, and social relations, causing negative implications on the population's daily lives.³ The recent resettlement carried out by Vale company in Tete province is part of this long history of resettlement in Mozambique and Tete in particular. Vale S. A, formerly known as Vale do Rio Doce (CVRD), is a Brazilian multinational mining company that won the tender launched by Mozambique's government to explore the coal mine in the district of Moatize. The contract for the exploration was only signed in 2007, and the project included resettling 1,313 families.⁴

My interest in studying resettlement in Tete emerged during field research I conducted in Moatize between July and September 2018. This research was part of the "Municipal Governance Barometer," an ongoing research project at the Institute for Social and Economic Studies (IESE) based in Maputo. When asked to evaluate the municipal government's performance, the people I

² João Paulo Borges Coelho, "Protected Villages and Communal Villages in the Mozambican Province of Tete (1968-1982): A History of State Resettlement Policies; Development and War" (PhD diss., The University of Bradford, 1993); Luís de Brito, *A Frelimo, o Marxismo e a Construção do Estado Nacional 1962-1983* (Maputo: IESE, 2019); Thomas H. Henriksen, "Marxism, and Mozambique," *African Affairs* 77, no. 309 (October 1978): 452; Alice Dinerman, *Revolution, Counter-Revolution and Revisionism in the Postcolonial Africa: The case of Mozambique, 1975-1994* (London: Routledge, 2006).

³ Christian Geffray, *A causa das Armas: Antropologia da Guerra contemporânea de Moçambique* (Porto: Edições Afrontamento, 1991); João Paulo Borges Coelho, "Protected Villages and Communal Villages in the Mozambican Province of Tete (1968-1982): A History of State Resettlement Policies; Development and War" (PhD diss., The University of Bradford, 1993).

⁴ João Mosca and Tomás Selemane, *EL dorado Tete: os mega projectos de mineração* (Maputo: Centro de Integridade Pública, 2011); Tomás Selemane, *Questões à volta da Mineração em Moçambique: Relatório de Monitoria das Actividades Mineiras em Moma, Moatize, e Sussundenga* (Maputo: Centro de Integridade Pública, 2010).

interviewed highlighted the coal mining industry and its implications on the community's lives, especially the resettlement process carried out by the Vale company. Thus, I decided to push the boundaries of my research, trying to understand the resettlement and the narratives regarding the process.

Several years later, I decided to revisit this material because it contains elements that can contribute to widening our understanding not only of the resettlement process but also of the mining industry and its effects on local communities. By using a micro-historical lens, I reworked material produced through consultancy research, questioning the limits it imposes on a researcher and how knowledge is produced within those limits.⁵ It is a way of exploring the human aspects beneath the reporting prose of consultancy knowledge production, which is often confined to variables and patterns aligned with the client's interests in an utilitarian manner.

Although several studies have been carried out about the resettlement in Tete and its implications on the local communities, most of these deal with the macro issues and do not allow us to access the singularities or details of the phenomenon. On the contrary, my research, framed in a micro-historical mould, focuses on a small-scale analysis of the phenomenon. The micro-historical approach allows me to explore people's feelings and daily experiences of the resettlement process. It helps us see elements that would be difficult otherwise, especially: religious factors, labour factors, and the ecological problems experienced by those who remained close to the mining activities.

The study tackles these issues through a number of case studies, namely: the stories of the group of potters removed by the mining company from the place where they produced house bricks to make space for the mining activities; the issue of the new cemetery built by Vale company in the Cateme resettlement and the conflict around the exhumation of bodies from the old cemetery to the new one; the ecology of the communities living close to the mining activities, analysing, on one side, their life experiences with the mining explosions and the air pollution prompted by the coal dust, and on the other side, the water crisis and its impacts on these communities.

⁵ See: Mahmood Mamdani, *Scholars in the Market Place: The Dilemmas of Neo-Liberal Reform at Makerere University, 1989–2005* (Dakar: CODESRIA, 2007).

Resettlement in Mozambican History: An overview

In a context marked by massive international migration, the population at risk of disasters, and the implementation of many development projects which sometimes have negative implications on the resettled population's lives, resettlement has become an important topic of debate worldwide, and many governments are making it part of their political agenda.⁶

Resettlements also have played a crucial role in Southern African history. For instance, with the introduction of the Apartheid government in South Africa in 1948 and, consequently, the Homeland Policy in the 1950s, the world witnessed one of the largest waves of removals and resettlements of Africans in urban and rural areas. The apartheid government established group area townships in the urban sites, which separated residential and trading areas for blacks, coloured, Indians, and white people. In the rural areas, supported by the Native Trust and Land Act of 1936, aiming to improve agricultural production, soil conservation and environment, the government moved many families into concentrated villages of what would be known as Betterment Planning Policy. The literature shows how the removals and resettlement affected the social and economic relations among the families and communities because some people were moved into different places; people became more vulnerable to poverty as many had no access to resources such as land, livestock and even jobs for their daily sustenance.⁷

Another example in the region is the *Vijiji vya ujamaa* policy in post-colonial Tanzania, introduced by President Julius Nyerere a few years after the country's independence from the British colonial power. The central aim of this policy was "the attainment of a self-reliant socialist nation."⁸ Because rural development constituted the central element for achieving that goal, the peasants had to be moved into newly-created villages to collectivise agriculture production through

⁶ Changrok Soh, Minwoo Kim and Youngsoo Yu, "The Emergence of New Resettlement Countries: A Human Rights Norm Cascade?" *Journal of International and Area Studies* 24, no. 1, (June 2017); Natalie Welfens, Julian Lehmann and Marie Wagner, *Democracy and Human Rights: Towards A Global Resettlement Alliance* (Bonn: Friedrich Ebert Stiftung, 2021); Elena Correa, Fernando Ramírez and Haris Sanahuja, *Population at Risk of Disaster: A Resettlement Guide* (Washington: World Bank & Glocal Facility for Disaster Reduction and Recovery, 2011).

⁷ Barbara Rogers, "Mass Population Removals in Apartheid South Africa (1978-1980) (United Nations Centre Against Apartheid, 1980); Chris Wet, "Resettlement and Land Reform in South Africa," *Review of African Political Economy* 21, no. 61. (September 1994); Bill Freud, "Forced resettlement and the political economy of South Africa," *Review of African Political Economy* 11, no. 29 (1984); Koni Benson, "Drawing (on) the past in Histories of the Present: Dialogues and Drawings of South African Women's Organized Resistance to forced Removals," in *African Cultural Production and the Rhetoric of Humanism*, ed. Lifongo Vetinde and Jean Blaise Samou (Maryland: Lexington Books, 2019), 127-149; Isabella Kentridge, "And so they moved one by one: Forced Removals in a Free State Town (1956-1977)," *Journal of Southern Africa Studies* 39, no. 1 (March 2013).

⁸ Bonny Ibhawoh and J. I. Dibua, "Deconstructing Ujamaa: The Legacy of Julius Nyerere in the Quest for Social and Economic Development in Africa," *African Journal of Political Science* 8, no. 1 (June 2003): 60.

cooperative farms. However, as Raikes stresses, “this ambitious programme to transform Tanzanian agriculture by setting up nuclei of modern farming failed even to achieve its primary objective.”⁹ The lack of skills and education among the rural peasants, the high bureaucracy in the implementation of the policy, sometimes ignoring the context and the reality of the local communities, social relations, traditional and rural practices such as pastoralism, kinship and lineage authority, where some of the problems inherent in this policy.¹⁰ In James Scott’s account, the *ujamaa* policy was a modern strategy of organising the communities to control them.¹¹

Villagisation, dams and communal villages

Mozambique also has a long history of resettlements. For instance, the Portuguese government implemented villagisation during the colonial period to control the rural population. As the anti-colonial struggle intensified in northern Mozambique, and fearing that the movement would gain more terrain, the Portuguese government decided to resettle the population into villages. The policy, implemented between 1968 and 1974, was part of the government’s counter-insurgency strategy to control the rural population and avoid their contact with the Frelimo guerrilla forces.¹²

In Tete, the villagisation programme started in 1968 after the Frelimo guerrillas had entered the district. By 1974, the last year of the policy, there were in the whole district of Tete 251 *aldeamentos*, of which 44 were located in the *Concelho* of Moatize.¹³ Adhering to the villages was compulsory and sometimes even coercive. This meant leaving behind many of their properties, such as the land and the graves of their ancestors, cattle, farms, etc. Life within the *Aldeamentos* was challenging. The *aldeamentos* had serious problems with access to fertile land and water. This was mainly related to their location, which the government authorities did not observe properly. Although the initial plan established that the location of the villagisation had to obey three main criteria – namely, closeness to water supplies, appropriate land for agriculture, and ease of access

⁹ P. L. Raikes, “Ujamaa and rural socialism,” *Review of African Political Economy* 2 (1975): 39.

¹⁰ James C. Scott, *seeing like a state: How certain schemes to improve the human condition have failed* (New Haven: Yale University Press, 1998); Ibhawoh and Dibua, “Deconstructing Ujamaa,” 59-83; Raikes, “Ujamaa,” 33-52; Zaki Ergas, “Why Did the Ujamaa Village Policy Fail? Toward a Global Analysis,” *The Journal of Modern African Studies* 18, no. 3 (September 1980): 387-410.

¹¹ Scott, *seeing like a state*, 235.

¹² João Paulo Borges Coelho, “Protected Villages and Communal Villages in the Mozambican Province of Tete (1968-1982): A History of State Resettlement Policies; Development and War” (PhD diss., The University of Bradford, 1993).

¹³ Borges Coelho, “Protected Villages and Communal Villages”

and defence – the lack of funds to support the assessment of the *aldeamentos* locations, hindered the local government authorities from following the above-defined criteria. Thus, most of the new villages' locations were chosen based on the experience of the District government officials and local army commanders. These ecological factors strongly affected the agricultural production and, thus, the livelihood of the rural population in the *aldeamentos*. They became more vulnerable to hunger than before being resettled.

After the county's independence in 1975, the Frelimo new government also implemented a resettlement programme known as the *aldeias comunais* (communal villages). The programme was anchored on two main pillars: resettling the rural population and transforming production relations. The population resettlement into communal villages was seen as a solution to overcome the new government's difficulties in controlling the rural population that lived scattered and in regions with difficult access. The transformation of production relations and the creation of cooperative farms were seen as policies that would promote development in the countryside.¹⁴ By 1982, there were around thirty-nine communal villages in the whole province of Tete, and by 1983, they grew to forty-eight.¹⁵ The majority of the population in these villages was originally from the former *aldeamentos* because a significant number of communal villages were built where the former colonial *aldeamentos* stood.¹⁶ The people's move to the communal villages wasn't always peaceful. Sometimes, because many people did not want to adhere to the communal villages, fearing experiencing the same hardship they did in the former *aldeamentos*, the government officials adopted coercive mobilisation. Sometimes, they even blackmailed the population by directing the aid only to the populations within the communal villages to force those out of the village to adhere to the policy.¹⁷

It wasn't long before the population started facing hardship in the communal villages. The collectivisation of the agriculture strategy through cooperative farms did not produce the expected results. The weak capacity of the state to provide the necessary means for the functioning of the

¹⁴ João Paulo Borges Coelho, "State resettlement policies in post-colonial rural Mozambique: the impact of the communal village programme on Tete province, 1977-1982," *Journal of Southern African Studies* 24, no. 1 (February 2007).

¹⁵ The quantitative data regarding the communal villages is very subjective, not only because of the criteria used by officials to define the communal villages varied but also because of the lack of institutional and coordinator skills among the staff who worked on the collection of the information in the field. See: Borges Coelho, "State resettlement policies"

¹⁶ Borges Coelho, "State resettlement policies"; Araújo, "O sistema das aldeias comunais," 314-315.

¹⁷ Borges Coelho, "State resettlement policies"; Araújo, "O sistema das aldeias comunais," 314-315.

cooperatives, such as seeds, agricultural tools (hoes, machetes, ploughs, knives), the lack of a functional rural trade network to commercialise the harvested crops, worsened by the lack of transport and good roads infrastructure to transport the crops contributed to the failure of the cooperatives. Another factor that contributed to the hardship experienced by the population in the communal villages was the lack of access to fertile land for household agriculture. The prioritisation of cooperative farms instead of household agriculture created a conflicting situation between the cooperative and household production, as most fertile land was provided to the cooperatives, and the remaining land had to be shared among the families. The significant number of people in the communal villages and the shortage of land for household agriculture created, according to Borges Coelho, two main ecological effects. On the one hand, the situation increased the pressure on the land, causing erosion and the shortage of other natural resources used by the population daily, such as firewood, wood to build houses and wild fruits. On the other, given the land shortage and the hardship experienced in the communal villages, such as famine, most families had no choice but to travel long distances to find land to cultivate; some even returned to their old villages.¹⁸

Most of these ecological issues were related to the fact that a significant number of *aldeias comunais* were located in the same place as the former *aldeamentos*, which already had severe ecological issues. The situation in the villages established in new locations was not different. Most of them were located in areas considered inappropriate for agricultural practice and had no water accessibility. For instance, the population in the communal village of Vila Nova da Fronteira, in Mutarara district, faced a severe water crisis, and the government authorities had to transport water from Beira city by train to supply the settlement. Nevertheless, all these hardships experienced by the rural population in the communal villages raised a lot of dissatisfaction among the rural population, who saw no difference between the *aldeias comunais* and the colonial *aldeamentos*.¹⁹ Scholars such as Borges Coelho, Christian Geffray, Sérgio Chichava and Anne Pitcher argue that, far from creating a modern and prosperous society as envisioned by Frelimo, the communal village policy disrupted the populace both economically and socially.²⁰

¹⁸ Borges Coelho, "State resettlement policies"

¹⁹ Borges Coelho, "Protected Villages and Communal Villages"

²⁰ Borges Coelho, "Protected Villages and Communal Villages"; Sérgio Chichava, "They can kill us but we won't go to the communal villages: Peasants and the policy of socialization of the countryside in Zambezia," *Kronos: Southern African Histories* 39 (November 2013); Anne Pitcher, "Disruption Without Transformation: Agrarian Relations and Livelihoods in Nampula Province, Mozambique 1975-1995," *Journal of Southern African Studies* 24 (March 1998).

The construction of the Cahora Bassa Dam, carried out by the Portuguese colonial government in the late 1960s, implied the displacement of around twenty-five thousand people from their original lands across the Zambezi River. Allen and Barbara Isaacman explore the socio-ecological impact of the Cahora Bassa project. The authors analyse the term ‘displace’ from two different perspectives. The first is related to the conventional understanding of the term, which entails the removal of people or goods from their usual place. Here, the authors analyse the forced removals of people from the Songo highlands when the area was granted to the multinational Zamco (the company in charge of the construction of the Cahora Bassa dam) and the peasants who abandoned their fertile lands in the Zambezi River banks due to the Dam discharges floods. The displacement implied the resettlement of the population in the *aldeamentos*. This meant abandoning their ancestral fertile lands across the river margins, including crops in the field.²¹

The project also displaced animals, plants, and soils apart from human beings – it disrupted the entire ecological system of the region. For instance, due to the overflowing of the dam reservoir, many wild animals that lived in the area next to the river drowned or immigrated to safe regions. On the other hand, it also affected the land and vegetation of the region. The authors extend the term ‘displace’ to describe the transfer of energy produced by the Cahora Bassa Dam to supply the South African cities, industry and farms. However, while quantities of megawatts fuelled the South African economy, the local population directly affected by the projects had no electricity.²²

The second perspective of the term ‘displace’ is less tangible than the previous one. It is related to the dominant colonial and post-colonial narratives of the history of Cahora Bassa and how they have overshadowed the stories and narratives of the local population regarding the violence caused by the project. Despite recognising the harmful effects of the project, both the colonial and Frelimo governments have engaged in developmental discourses that promoted the project's alleged benefits for the country, ignoring all the violence stories encapsulated in it.²³

²¹ Allen Isaacman and Barbara Isaacman, *Dams, Displacement, and the Delusion of Development: Cahora Bassa and Its Legacies in Mozambique, 1965-2007* (Ohio: Ohio University Press, 2013).

²² Isaacman and Isaacman, *Dams, Displacement*.

²³ Isaacman and Isaacman, *Dams, Displacement*.

The Vale resettlement project

Several other resettlement processes have taken place in the country, whether for political reasons, natural disasters, or to give place to development projects. The Vale resettlement in Tete is part of the development-induced resettlement. The coal mining industry in Tete has called the attention of many scholars, civil society, and international organisations to study the impacts of mining projects on the local communities' lives. Thus, special attention has been given to the resettlement process carried out by the multinational corporations to initiate the coal extraction.

One of the first studies on the topic was published in 2011 by the Centre for Public Integrity (CIP). The study aimed to analyse the impacts of mining projects on the social and economic local dynamics of Tete City and Moatize district. Regarding the resettlement, the authors report many negative implications of the process on the resettled population, such as the low quality of the new houses, improper land for agricultural production, and lack of water, transportation, markets, and job opportunities. Although these aspects were identified in the resettlement carried out by Vale company (*25 de Setembro* and Cateme) and Rio Tinto (in Mwaladzi), most are poorly elaborated.²⁴ It is important to mention here that there is a report published in 2010 by Tomás Selemanene on the mining sector in Mozambique. Although the study was not only about Moatize in Tete but also of four other districts around the country, Moma, Sussundenga and Manica, he also analyses the Vale resettlement process, describing how the process was carried out and the problems with the house compartments and conditions, most of which had cracks, land for agriculture, water access.²⁵

Human Rights Watch has also studied the resettlement process in Tete, focusing on the human rights aspect. The study concluded that the resettlement process has negatively affected the quality of life of the communities, mainly because of arid land and water uncertainty that directly affected the livelihood of the families. The report also mentions the problems pointed out by Mosca and Selemene, such as unemployment, low quality of the houses, the long distance of the resettlements from public services, lack of transportation, and environmental pollution because of the open pit mining.²⁶ While the report mentions the effects of coal mining environmental pollution on the communities, it does not present examples and narratives from the communities regarding their daily experience with air pollution. The study also mentions the group of potters the mining

²⁴ Mosca and Selemene, *EL dorado Tete*.

²⁵ Selemene, *Questões à volta da Mineração*.

²⁶ Human Rights Watch. "*O que é uma casa sem comida?*": *O boom da mineração em Moçambique e o Reassentamento* (USA: Human Rights Watch, 2013).

companies removed from the area where they used to make bricks to sell and provide for their families, but it doesn't elaborate on the issue. For example, it does not mention the conflict between the potters, the Vale mining company, and the local government regarding the compensation issue.

Coutinho analyses the sociocultural and spiritual dimensions of the mining-induced resettlement in Tete. In his study, he argues that although the Vale company allowed the communities to have some spiritual ceremonies on their departure from the place they were removed from and on their arrival in the new resettlement, the company didn't fulfil its promise of transferring the human remains from the Chipanga cemetery to the new cemetery built in the Cateme resettlement.²⁷ Although Coutinho's study mentions the exhumation issue, it doesn't elaborate on the matter. For instance, it doesn't explore the conflict between the mining company and the resettled population over the exhumation issue, nor does it discuss the boycott of the resettled population using the new cemetery in Cateme.

More studies on cultural and spiritual issues are needed not only for Vale's resettlement but also for Tete mining-induced resettlement in general. Nevertheless, within that paucity, it is also important to mention the study by anthropologist Nikkie Wiegink.²⁸ In her research, focusing on the Mualadzi resettlement site, Wiegink shows how the mining companies, when removing the local communities from Chipanga to the Mualadzi resettlement, ignored the cultural and spiritual aspects related to the communities' burial practices. The mining companies ignored the local communities' request for the transference of human remains from the old Capanga cemetery to the new Mualadzi cemetery. Although Wiegink's study does not focus on the Vale resettlement, which is the object of my research, the local communities' narratives in her study are an illustrative example of how violent the extractive industry has been for local populations, so much so that it affects not only their material world but also the spiritual realm.

Wiegink also analyses the resettlement in Mozambique by comparing the recent Tete resettlements with the colonial *aldeamentos* and the *aldeias comunais* introduced by the Frelimo in post-independence. Although implemented in different contexts, she argues that the three resettlement plans had many similarities, for example, lower levels of involvement of the

²⁷ Cremildo de A. Coutinho, "Mining Policy and Socio-cultural and Sustainable integration of the Resettled in Cateme – Mozambique: 2009 – 2017," *Brazilian Journal of African Studies* 4, no. 8. (Jul./Dec. 2019): 93-112.

²⁸ Nikkie Wiegink, "Dislocation of the dead: land, burial and resettlement around coal mines in Mozambique," in *Africa Now: Transformations of rural spaces in Mozambique*, ed. Cecilia Navarra and Cristina Undelsmann Rodrigues. London: The Nordic Africa Institute, 2022.

communities in the resettlement process, inappropriate land for the practice of agriculture, and lack of water; ignoring of ancestral burial grounds and the linkages of the traditional authority structures with the land. In general, all three resettlement processes jeopardised the population's livelihood, resulting in suffering and hardship.²⁹

Pedro has also analysed the Vale resettlement process regarding its implications on the life quality of the resettled communities. Responding to his research question about whether it was possible to improve the quality of life of the communities forced to move from their old communities to the new resettlement, he argues that, on the one hand, there was an improvement in terms of education, health, water access, and electricity, on the other hand, there was a decline regarding the cultural identity and the livelihoods of the communities. Thus, the resettlement impoverished some families, and others had no sense of ownership regarding their new houses and community. As the author states, "They are living like guests."³⁰

The book by Osório & Cruz e Silva analyses the effects of resettlements on the communities in Tete through a gender relations approach. Although the book also examines the mining industry legislation and its implementation in a context where the fragility of the state compromises the supervising the mining companies' activities in the field, giving the companies the monopoly of the whole process, its analysis focuses mainly on the effects of the resettlements on women and girls and how they try to overcome social exclusion and men domination. The loss of women's rights because of their impossibility to contribute to the livelihoods of the families through agriculture and other activities, men's unemployment, polygamy, domestic and sexual violence, and premature marriages, in part caused by the breakdown of families, are some of the aspects of women rights violation caused by the resettlement process.³¹

The ecological effect of the mining industry in Tete is another factor that has gained some attention from scholars and civil society organisations. The focus of the studies has been on the communities near the mining activities. In general, the studies argue that mining activities have negatively impacted the ecosystem of the local communities in Moatize: the invasion and destruction of the forest and rivers have hindered the population's access to firewood, water,

²⁹ Nikkie Wiegink, "Resettlements in Mozambique: Development, Displacement, and Control in the (Post) Colony," *E-journal of Portuguese History* 20, no. 2 (December 2022).

³⁰ Joana de J. C. Pedro, "Reassentamentos Forçados: Dos impactos às oportunidades" (Master diss., Instituto Universitário de Lisboa (ISCTE-IUL), 2011).

³¹ Conceição Osório and Teresa Cruz e Silva, *Corporações Económicas e Expropriação: Raparigas, Mulheres e Comunidades Reassentadas no Distrito de Moatize* (Maputo: Wlsa, 2017).

fishing, and cattle grazing; the quality of the soil has changed, affecting agricultural practice; the air quality has also been affected by the coal dust pollution; the coal mining explosions causes both noise pollution and ground shaking and, consequently, cracks in the houses. However, one of the weaknesses of these studies is related to the method used to interview the local communities, as most relied on questionnaires. Although it allowed the researchers to analyse the ecological impact of mining activities, there are less explored details that are partly related to the brief character of the questionnaire, which does not allow for deepening the issues raised by the interviewees during the interview. For instance, what are the daily life stories of these communities regarding air pollution, noise pollution and mining blasting? How are these environmental effects negotiated between the local communities, the government and the mining companies? The Source International report refers to water tanks placed by the Vale company in Bagamoyo and Nhantchere to minimise the water crisis in these communities. Still, it does not tell the stories and the power relations around it. Thus, the ethnographical texture of my research allows me to explore these factors more in depth.³²

Extractivism and Mining

The analysis of the ecological impact of the Vale mining activities in my research occurs in conversation with broader literature about extractivism. In the last decades, scholars from different disciplines have given special attention to studying resource extraction and its socio-environmental effects. For instance, in a world dominated by developed countries, economist Joseph Stiglitz examines how globalisation can be more equal and beneficial for everybody, especially those in developing countries. The developed countries usually manipulate international trade regulations for their own benefit, and the developing countries rich in natural resources do not get the actual value of their resources. Moreover, resource extraction severely damages the environment, and developed countries and their multinationals do not take responsibility for the damage they cause. Thus, Stiglitz proposes a series of international reforms to promote fair globalisation, such as the

³² See: Source International, *Estudo de Linha de Base (ELB) da Qualidade Ambiental e dos Direitos Humanos em Seis Comunidades Piloto Ameaçadas pelas Actividades de Mineração de Carvão em Moatize* (Tete: Source International, 2019); Ana Piedade Monteiro *et al.*, *Impacto Ambiental da Mineração de Carvão a Céu Aberto no Distrito de Moatize: Uma abordagem sobre Serviços Ecossistêmicos* (Maputo: SEKELEKANI, 2020); Trindade F. Chapare, Thierry B. Lummertz and Marta L. Fischer, “Impactos ambientais, objetivos do desenvolvimento sustentável e bioética ambiental: A exploração do carvão mineral no distrito de Moatize, Moçambique,” *Revista Iberoamericana de Bioética*, no. 14 (2020); Jânio C. J. Dambo, “Diagnóstico sócio-ambiental da Mineração de Carvão em Moatize, Moçambique – Como Subsídio ao Planeamento” (Master diss. Universidade Federal do Ceará, 2014).

establishment of new institutions to ensure that the countries rich in natural resources get the full value for their resources, the establishment of an international agency to monitor the environmental damage caused by multinationals in the context of resource extraction.³³

The Book *Our Extractive Age*, edited by Shapiro and Mcneish, explores experiences of extractivism from various world contexts, such as Latin America, Asia, and Africa. The book has the particularity of analysing various forms of resource extraction other than mining and oil. For instance, some contributors explore resource extraction in the construction, information and data industries, industrial agriculture, tourism, talent, and geo-engineering industries. All these forms of resource extraction share one thing in common: they exert some violence on human beings and the environment. Although in most cases, this violence is visible, sometimes it is invisible because of the environmental effects of resource extraction that can only manifest in the long term. That is the case, for instance, of people exposed to air pollution caused by open pit mining. The impact of the pollutant particles on their health might not be visible, but they cause serious health issues over time.³⁴

The invisibility of ecological violence was extensively analysed by Rob Nixon – it is what he calls ‘slow violence’.³⁵ Nixon explores the kind of violence that occurs over time and space, and it is normally not considered violence at all, such as climate change, the radiative aftermaths of wars, deforestation, acidifying oceans and toxic drifts, just to mention a few. For instance, he refers to children who are born with genetic disorders due to their parent's exposure to war radiation. According to Nixon, the main victims of the slow violence are poor people, those who lack almost everything, as we see in the global south. Nixon urges us not only to rethink our assumptions about violence and consider slow violence like any other sort of violence but also to adopt more inclusive and fair environmental decisions that take into account those marginalised communities.

Authors such as Eduardo Gudynas and Alberto Acosta have extensively analysed the forms of extractivism carried out by progressive governments in South America and their challenges. These authors argue that despite the substantial changes in the new form of extractivism, known as neo-extractivism, it maintains most of the harmful practices of old extractivism. The logic of

³³ Joseph E. Stiglitz, *Making globalization work*, 1st edition, (New York: W. W. Norton & Company, 2006).

³⁴ Judith Shapiro and John-Andrew McNeish, ed., *Our extractive Age: Expressions of Violence and Resistance* (New York: Routledge, 2021).

³⁵ Nixon, *Slow Violence*.

capital accumulation, despite the increased state intervention and control over resource extraction, continues the same. Neo-extractivism continues damaging the environment the same way it did in the past. These progressive governments have proved to be inefficient in tackling environmental issues as they perceive the environmental damages of extractivism as a price to be paid for the benefit of all. Many of these countries can sometimes voluntarily decide to weaken the environmental legislation and enforcement to allow multinational companies to explore natural resources in the country. Gudynas and Acosta propose a transition to a post-extractivist economy as a solution for the current socio-environmental issues faced in the global south. That transition implies not only diversifying the economy by promoting other economic sectors but also taking into account ecological sustainability.³⁶

A long history of extractivism also marks the African continent. Since the colonial period, Africa's natural resources have attracted the attention of many imperial powers who sought to exploit them. Many scholars have analysed the dynamics of the extractive industry and its socio-economic and environmental impacts in Africa. In *Global Shadows*, James Ferguson presents a fascinating analysis of the extractive industry in Africa in the context of globalisation. The book addresses various issues ranging from globalisation and inequalities to social justice. In chapter eight of the book, Ferguson analyses the natural resource extraction governance and the various neo-liberal economic policies implemented by some African countries rich in natural resources. Like in many other contexts of the global south, the African resource-rich countries, despite abundant natural resources, have been unable to lift most of their population out of poverty. Most of the time, the revenue from resource extraction benefits a small elite close to political power. Ferguson also analyses the foreign capital investment flow in these countries. Contrary to what the World Bank and International Monetary Fund's analyses suggested (countries with good governance and a strong rule of law are more likely to attract more significant foreign capital investment), there were countries with high corruption and civil wars that successfully attracted

³⁶ Eduardo Gudynas, "The New Extractivism of the 21st Century: Ten Urgent Theses about Extractivism in Relation to Current South American Progressivism," Americas Program Report (Washington, DC: Center for International Policy, 2010); Alberto Acosta, "Extractivism and Neoextractivism: Two Sides of the Same Curse," in *Beyond Development: Alternate Visions from Latin America*, ed. M. Lang and D. Mokrani (Amsterdam: Rosa Luxemburg Foundation, 2013); Eduardo Gudynas, "Transition to post-extractivism: directions, options, areas of action," in *Beyond Development: Alternate Visions from Latin America*, ed. M. Lang and D. Mokrani (Amsterdam: Rosa Luxemburg Foundation, 2013); Eduardo Gudynas, "Extractivisms: Tendencies and consequences," in *Reframing Latin American Development*, ed. Ronaldo Munck and Raúl Delgado Wise, *Routledge Critical Development Studies* (Oxford: Routledge, 2019).

foreign capital investment. For instance, despite a devastating civil war in Angola, the country drew significant foreign capital investment and had one of the best GDP growth rates. The Angolan success had to do with a set of institutional innovations created by the government, such as using private security to protect the oil project facilities against the fury of the civil war. On the other hand, Zambia, despite the economic reforms implemented in the 1980s democracy and the rule of law, failed to attract foreign investment.³⁷

James Smith's book *The Eyes of the World* analyses the dynamics of artisanal mining in the Eastern Democratic Republic of Congo through ethnographical research. Smith shows how the extraction of the mineral known as 3Ts (tantalum, tin, and tungsten) brought into play the collaboration of various actors such as diggers, cleaners, work managers, potters, middle persons, hole owners, creditors and those considered auxiliary businesses such as toolmakers, food makers, etc. This supply chain allowed the emergence of a socio-economic dynamic (what they call *movement*) that contributed to the livelihood not only of the miners directly involved in the mineral extraction but also of society as a whole. Apart from the *movement* that entailed the collaboration and mobility of different actors connected to artisanal mining, there was another dimension of *movement* related to peace. People believed that “whenever there is movement allowed the circulation of money so that many hands can touch money, nourishing communities and bodies; in contrast, war, and the violent contraction associated with it, came when people were excluded from movement”³⁸ However, the introduction of ITRI tin supply chain initiative (ITSCI) disrupted the entire supply chain and the *movement* as it led to shut down of artisanal mining and the concession of the mines to multinational companies. This messed up the livelihood of the local communities, which depended on mining activities to survive.³⁹

Although from different contexts, the above literature on extractivism is useful to my research since it helps me analyse the socio-economic and environmental impacts of the Vale mining activities on the local communities in Tete. How, for instance, issues related to air pollution, ground shaking and the water crisis have conditioned the lives of the local communities in Moatize. What are the power relations between the government and the mining company regarding mining activity and the ecological impact on the local communities?

³⁷ James Ferguson, *Global Shadows: Africa in the Neoliberal World Order* (London: Duke University Press, 2006).

³⁸ James H. Smith, *The Eyes of the World: Mining the Digital Age in the Eastern DR Congo* (Chicago: Chicago University Press, 2022), 45.

³⁹ Smith, *The Eyes of the World*.

Sources and Methodology

This research explores an archive of interviews from previous research I carried out in Tete province between July and September 2018 within the Municipal governance project at the Institute for Social and Economic Studies (IESE). This archive encompasses thirty-three in-depth interviews in total, twenty-four of which are individual and nine focus group discussions about extractive mining and the resettlement effects on the community's lives in Moatize, Tete. The interviews are a result of ethnographic research conducted both in *25 de Setembro* neighbourhood and Cateme, the two sites where the Vale resettlement was located, but also in the other neighbourhoods of the Moatize municipality, namely, Chithatha, 1 de Maio, Bagamoyo, and Liberdade. The interviewees included resettled people, people from the communities living near the mining activities, Vale company employees, the local government authorities, and civil society organisations.

The fieldwork that resulted in the interviews used for this thesis was carried out in two phases. The first phase occurred in July 2018, and a questionnaire survey was conducted on a sample of 600 individuals within the Moatize municipal area. The survey was conducted with the support of a group of students from the Catholic University in Tete, who worked as assistant researchers. I coordinated and supervised the research team and the data collection during this research stage. Although the interviewees used for the thesis were not produced during this research phase, it is essential to note that most of the contacts and interactions with our interviewees were established during this phase.

After the quantitative research, I returned to Maputo, where I and other research group members identified the main issues that stood out in the quantitative research and could be deepened in the qualitative research. Thus, at the end of August 2018, my research assistant and I returned to the field for the second phase of the research – the qualitative research. In this phase, we conducted individual interviews and focus group discussions. However, unlike the first research phase, which focused on the municipal area, the second phase was extended outside the municipal boundaries. This extension was justified by the fact that many of the Vale resettlement issues could be better understood by expanding our research territory. Such was the case of Cateme, where part of the population removed from Chipanga was resettled.

The research also had challenges, one of which had to do with the issue of trust among our interviewees, especially in the initial research phase. Some of our interviewees felt uncomfortable discussing the challenges in their relationship with the mining company and government authorities for fear of reprisals. This fact was evident, mainly among the community leaders who often avoided commenting on sensitive issues, especially when evaluating the government's role in conflict management. Apart from the community leaders, this was also evident among the population. For instance, some interviews and focal group discussions with Potter's group members were conducted in isolated and discreet spots because they did not want to be seen by government authorities or people linked to the Frelimo party, allegedly because they feared reprisals. Many of these people had been intimidated and even threatened with death for being part of the protests against the mining companies' injustices to the local populations affected by the mining projects. However, it is important to note that the trust of our interviewees improved over time as they became more aware of the research we were doing and the level of confidentiality with which the information they provided would be dealt with.

A micro-historical approach was used to explore the archive of interviews. I believe the Vale resettlement process can be better understood by focusing on small unities of analysis rather than looking at it as a whole. So, my research studies the Cateme cemetery, the potter's issue, the mining explosion's impacts, air pollution and the water crisis. Other studies have mentioned these issues, but broadly, often focusing on more than one resettlement process (e.g., the Cateme and Mualazi resettlements). Although these resettlements have similarities in how they were carried out and the problems experienced by the resettled population, their analysis cannot be based on general trends because there are singularities of each process and community that shouldn't be taken for granted. So, the micro-historical approach allows me to explore and describe as much as possible the singularities and details of the issues mentioned above, acknowledging the heterogeneity and nuances of each social reality. As Levi argues, microhistorical research helps us reveal factors previously unobserved, and some phenomena previously considered sufficiently described or understood assume new meanings.⁴⁰

⁴⁰ See: Giovanni Levi, "On Microhistory," In *New Perspective on Historical Writing*, ed. Peter Buker (Cambridge, 1991); Carlo Ginzburg, "Microhistory: Two or Three Things That I Know About It," *Critical Inquiry* 20, no. 1 (Autumn, 1993); Sigurdur Magnússon, "The Singularization of History: Social History and Microhistory within the Postmodern State of Knowledge," *Journal of Social History* 36 (spring 2003).

The thesis combines creative ethnographic writing and analytical writing. The ethnographic writing model used in this research was influenced by the books *Kupilikula: Governance and the Invisible Realm in Mozambique* by Harry West,⁴¹ *In Step with the Times: Mapiko Masquerades of Mozambique* by Paolo Israel,⁴² *Barracoon: The Story of the Last Black Cargo* by Zora Hurston,⁴³ among others. On the one hand, the creative writing explores the ethnographical texture of the research, describing what was observed in the field and the narratives presented by the interviewees regarding the potter's issue, Cateme cemetery, and the ecology of the communities living near the mining activities. On the other hand, the analytical writing approach complements the microanalysis by discussing and interpreting the interviewees' narratives and field observations on the issues mentioned above.

Chapter Outline

The dissertation consists of five short chapters. Each chapter starts with an experimental interview sketch and is followed by a corresponding analysis.

The first chapter, *Displaced and Disrupted: The matter of the potters*, discusses a group of potters the Vale mining company removed from where they used to make house bricks, resulting in the loss of their livelihood. By exploring the other realms of incommensurable values, such as the labour identity of the potters, the chapter challenges the capitalist idea that assumes that everything is commensurable and replaceable. Based on the *mining encounters* approach, the chapter also explores the power relations among the different actors involved in the potters' issue and how they negotiated their interests.

The second chapter, *The Cemetery at Cateme: Overlooking culture and spirituality*, analyses how the Vale resettlement process disregarded the cultural and spiritual aspects of the local population regarding their burial practices. By comparing the Vale resettlement with the two past resettlements, namely the *aldeamentos* (villagisation) and *aldeias comunais* (communal villages), the chapter shows that they all share the same feature: they ignored the cultural and spiritual factors of the local communities.

⁴¹ Harry G. West, *Kupilikula: Governance and the Invisible Realm in Mozambique* (Chicago: The University of Chicago Press, 2005).

⁴² Paolo Israel, *In Step with the Times: Mapiko Masquerades of Mozambique* (Athens: Ohio University Press, 2014).

⁴³ Zora N. Hurston, *Barracoon: The Story of the Last Black Cargo* (New York: HarperCollins, 2018).

The third chapter, *They Don't Care About Us: Ecology, local communities and mining industry in Moatize*, analyses the ecological impacts of the Vale mining activities on the local communities around the mining site, such as ground shaking, air pollution and sound pollution. Through an engagement with the mining encounters approach and the general literature on the ecological impact of extractivism, the chapter analyses the daily life experience of the local population with the above ecological issues and how they were negotiated by the various actors.

The fourth chapter, *We no longer have access to the pond: Mining and water in Moatize*, analyses the impacts of the Vale mining project on the local communities' water access. The chapter shows how the construction of the mining fence by the Vale mining company and, thus, the access restriction to the ponds increased the local communities' water crisis. Through the 'waterscape' approach, the chapter also explores the power relations, identities and symbolic meanings around water and how the water issue was mobilised for political and private interests.

The fifth and last chapter, *This is like a field where they only come to harvest the crops: Coal mining and local development*, studies the implications of the mining projects on the local developments in Moatize. The analysis focuses on public service provision and job creation for the local communities.

Chapter 1
Displaced and Disrupted
The Matter of the Potters

During our fieldwork in Moatize, we heard in interviews and focus group discussions about a group of potters displaced by the Vale mining company from where they used to make house bricks for selling. Thus, on the morning of 26th September 2018, my assistant and I went to meet a man who was one of the representatives of the potters' group – let us call him Marcos – to tell us about their grievances.

“In 2010, they resettled the community that was living in Chipanga and at the time, they registered all pottery kilns,” said Marcos. “And there was an agreement between the company and the potter’s community to compensate us for interrupting our activities. In the beginning, they paid us sixty thousand *meticaís*.⁴⁴ But after a dialogue with the local government, we agreed that, in total, the mining company should pay us an amount not under a hundred thousand *meticaís* and no more than a hundred and twenty *meticaís*. But the mining company did not pay us the agreed amount. Because of that, we did the first uprising in 2013; we blocked the railway for three days, and the train couldn’t move.”

“Did it help?” I asked.

“They asked us to dialogue,” Marcos answered, “and said, ‘How much do you want to put an end to this issue?’ (...) We proposed an amount of two hundred and fifty thousand *meticaís*. They said, ‘We have to go and talk to our superiors.’ So, we realised that they were always trying to play us around. We disagreed with that and blocked the railway again. Then they came to us and asked to talk. So, they said, ‘We have a project for you (...). A project of making better bricks different from the ones you used to make in the past.’ They showed us a project of brick tiles. We saw and analysed the project and realised it wouldn’t help us. We said, ‘No, we don’t want this project.’ Then, they came up with another project; this time, it was an agricultural project. But it was also a collective project.”

“What was the project's budget, and where would it be developed?” I asked.

⁴⁴ Roughly 1000 USD at the time.

Marcos replied, “They didn’t tell us about the budget. They only presented the machinery. We told them we didn’t like the project (...). It was a collective project. But we were not doing collective projects before – we were working individually. So, we refused it and asked them to convert the collective project into cash and divide it among the potters so that we could run individual projects. The government and the mining company rejected our request; they said they could only pay for collective projects. So, when we realised the local government did not want to help us find a solution with the mining company, we wrote a letter to the provincial governor informing him about the issue. After receiving our letter, he summoned us and the mining company for a meeting in his office.”

“When was that?” I asked.

“It was last year, in December,” Marcos replied and continued explaining, “The governor asked the mining company, ‘What is the problem with funding the projects? If the community don’t want the collective project, you must do what they want.’ Then, Ms Sonia [the representative of the Vale company] said, ‘No, we are not in the phase of distributing money. We want to give them the project so that Moatize can develop.’ The governor said, ‘Go back to Moatize, sit and try to find a solution because we can’t be here arguing.’ Then we came back to Moatize. We sat several times to dialogue, but unfortunately, we disagreed. They were trying to convince us to take the collective project, and we didn’t want it because it wouldn’t help us.”

“Now, what are you going to do?” I asked.

“We heard some rumours that they are saying, ‘If they don’t agree to take the project, they will lose everything.’ Dialogue is not working; we talk, but there is no solution (...). They say the same thing, ‘Take the project, take the project, take the project.’ So, this is what is putting us in conflict because we don’t want the collective project. It has been seven years now dealing with the same issue, but nothing has changed so far.”

* * *

When the Vale mining company initiated the resettlement process between 2009 and 2010, the potters had to stop their brick-making activities to give place to coal mining extraction. As compensation for the interruption, the mining company paid each potter an amount of 60,000 *meticais* (roughly 20,000 South African Rands at the time). The potters considered the amount

unfair not only because it didn't compensate for their lost livelihoods but also because it did not match the number of bricks in the pottery kilns when they were displaced. For instance, when the potters and their families were removed from their homes, some people had ninety-seven thousand bricks in their pottery kilns, and others, who produced on a large scale, around one million bricks.

After a series of complaints and protests by the potters for fair compensation, there was an agreement between the potters and the local government authorities on September 28, 2010. Through a memorandum of understanding, both sides agreed that the compensation amount would not be lower than 100.000 *meticais* and higher than 120.000 *meticais*. The document was then addressed to the mining company so they could proceed with the payments. Nevertheless, the mining company did not make the payments, and two years after the signing of the memorandum of understanding, the potters decided to protest on 17 April 2013. They blocked the railway used by the mining company to transport coal to Beira and Nacala Ports for three days. After a request for dialogue from the local government, the potters interrupted the protest and sat for talks with the mining company and the local government authorities. Unhappy with the result of the negotiations, the potters decided to protest again less than a month after the first protest was carried out. On 14 May 2013, they blocked the railway and all the entrances to the mining site in an attempt to have their voices heard.

Consultation and compensation issues were extensively analysed in the mining-induced resettlement literature. While the mining companies and government authorities see consultation and compensation as a key element to avoid conflict with the local community in the context of mining-induced resettlement, it has led to new conflicts within the local communities or between the communities, the mining companies and the government authorities. Most of the time, the compensation received by the displaced communities is lower than their lost land and properties, and the promises made before the resettlement process are rarely fulfilled.⁴⁵ Gilbert *et al.* argue

⁴⁵ Philippe Le Billon and Nicholas Middeldorp, "Empowerment or Imposition? Extractive Violence, Indigenous Peoples, and the Paradox of Prior Consultation" in *Our Extractive Age: Expressions of Violence and Resistance*, ed. Judith Shapiro and John-Andrew McNeish (New York: Routledge, 2021); Denise H. Bebbington, "Consultation, Compensation and Conflict: Natural Gas Extraction in Weenhayek Territory, Bolivia," *Journal of Latin America Geography* 11, no. 2 (2012); Almut Schilling-Vacaflor and Jessika Eichler, "The Shady Side of Consultation and Compensation: 'Divide-and-Rule' Tactics in Bolivia's Extraction Sector," *Development Change* 48, no.6, (September, 2017); Bogumil Terminski, "Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue (A Global Perspective), *SSNR*, (August 2012).

that consultation and the resulting compensation are sometimes used as instruments to “legitimise” land expropriation and further extraction of natural resources by the corporation companies.⁴⁶

The analysis in this chapter does not focus on the debate about the fairness of the compensation for the resettled communities. Instead, drawing on the story of potters displaced by the Vale mining company from where they used to make house bricks for selling, this chapter challenges the capitalist economic system idea that everything is equivalent to money – what Fabiana Li calls “logic of equivalence”⁴⁷ – and explores other dimensions of incommensurable values. The chapter argues that the way the Vale resettlement was carried out has contributed to the disruption of the existing livelihoods and the labour identity of the communities in Moatize. In a context where the local government and the Mining Company were forcing the potters to take up a collective project as compensation for the projects they developed before being displaced, the potters asked for individual projects. The potters’ response to the government and the mining company can be viewed as an attempt to defend the dignity of their labour against the idea that everything is equivalent and reducible to money—almost a guild response in terms of values against the equalising power of capitalism. In addition, building on the concept of *mining encounters*, the chapter explores the power relations, the frictions and negotiations between the different actors involved in the potters issue.⁴⁸

As mentioned before, the protest was a way the potters found to put pressure on the mining company and the local authorities to give in to their demands. As Le Billon and Middeldorp argue, in a context of extractive conflicts, “despite all the risks of repression or violence the local population can face by carrying out protests, this has often been one of the only ways people have found to make their rights heard and respected.”⁴⁹ Thus, after the second potters’ protest on 14 May 2013, the local government authorities called them for negotiations with the mining company. In this meeting, the potters were introduced to a collective pottery project to make house bricks and tiles. Although the government authorities and the mining company argued that this project

⁴⁶ Jacqueline E. Gilbert, Tamra Gilbertson and Line Jakobsen, “Incommensurability and corporate social technologies: a critique of corporate compensation in Colombia’s coal mining region of La Guajira,” *Journal of Political Ecology* 28, (2021).

⁴⁷ Fabiana Li, “Engineering responsibility: Environmental mitigation and the limits of commensuration in a Chile mining project,” *Focaal—Journal of Global and Historical Anthropology* 60 (June 2011).

⁴⁸ Robert J. Pijpers and Thomas H. Eriksen, “Introduction: Negotiating the Multiple Edges of Mining Encounters,” in *Mining Encounters: Extractive Industries in an Overheated World*, ed. Robert J. Pijpers and Thomas H. Eriksen (London: Pluto Press, 2019).

⁴⁹ Le Billon and Middeldorp, “Empowerment or Imposition,” 80.

was better than the one they developed before being displaced, the potters rejected it because of its feasibility and collective character. However, after some contestation from the potter regarding the project, the government authorities and the mining company presented them with an agricultural project. Still, as the previous one, it would be a collective project. The potters once again rejected the project, arguing that they did not run collective projects before being displaced. They also told us in many interviews that the local government authorities and the mining company weren't clear on how the project would work, considering that there were around 804 potters. As one of the potters stressed, "We are around 804 potters; I'm talking about those in our records. How would all these people work together?! They couldn't even explain clearly to us how it would work. So, we realised it's not going to work (...). No way. That is why we are saying that we want individual projects."

All these factors led to the potters' mistrust toward the local government authorities and seeking help from other levels of government.⁵⁰ For instance, on 16 March 2018, they sent a letter to the provincial governor, Paulo Auade, asking him to intervene in the case. In the letter, signed by the potter's president, they said the potters' community did want funding for a collective project because they ran individual projects and each member had their own financial budget.⁵¹ The governor instructed the local government to sit with the potters and the mining company to find a solution locally. As usual, after several meetings, no agreement was reached. On one side, the potters firmly argued that they didn't want a collective project. On the other side, the local government authorities and the mining company stressed that a collective project was the only option they could offer.

When the potters realised that even with the intervention of the provincial governor, there was no solution, they wrote a letter to the President of the Republic of Mozambique, Filipe Nyusi, in December 2017, asking for help. It is important to mention that a year before, on 10th December 2016, the Minister of Mineral Resources and Energy, Letícia Klemes,⁵² who was visiting the region then, met with the potters in Moatize and discussed the issue⁵³. None of the potters' actions

⁵⁰ It is important to mention that at the local level, apart from the local district government, the potters also tried to find help from the municipal government.

⁵¹ Potters letter to the governor of Tete province, Moatize, 16th March 2018.

⁵² Letícia Klemes was appointed to the office in October 2016, and exonerated on December 2017 by President Filipe Nyusi.

⁵³ See: Jornal Malacha, "Ministra dos Recursos Minerais Convoca Reunião de Emergência com Oleiros em Moatize," Facebook, December 10, 2016, <https://www.facebook.com/jornalmalacha/photos/a.205970573099407/351600575203072/>

to search for a solution at different government levels (District, Provincial and National levels) worked. The local government authorities continued with the same idea of a collective project. One of the government officials we interviewed said:

As the government, we are saying they must agree with the project (...). The project's idea is better for them. There is a project to make bricks (...) better bricks than the ones they used to make before, and there is also a project for agriculture production. So, it depends on what they want to do (...). They can continue with the bricks project or take the agricultural project.⁵⁴

One of the points that emerges from the potter's issue is the interplay, the negotiations and the power relations between the local government authorities, the mining company and the potters' community, what Robert Pijpers and Thomas Eriksen call "mining encounters."⁵⁵ Despite the national mining legislation determining that compensation must result from an agreement between the government, the company and the community⁵⁶, the idea of a collective project was negotiated and decided only between the local government authorities and the mining company. The potters were only called to be informed about the project and compelled to take it. This fact shows not only the exclusion of the local community in the negotiation process but also the power asymmetry between the three actors. Fabiana Li argues that "compensation agreements can sidestep legal framework and exploit the existing power asymmetries." Most of the time, the local communities are the most affected part of the process.⁵⁷ Sigismond Wilson, analysing the mining-induced resettlement in Sierra Leone, also shows how power asymmetries between the government, the resettled communities and the mining company contributed to the impoverishment of the resettled communities.⁵⁸ In a context where the agricultural officials had to determine the costs and mechanisms to compensate the population for their lost land and crops, they only consulted with the mining company to determine the value of the properties. Land and crop owners didn't have a

⁵⁴ Interview with Lucas Alface, head of the social affairs department at the municipality, Moatize, April 27, 2018.

⁵⁵ Pijpers and Eriksen, "Introduction: Negotiating the Multiple Edges of Mining Encounters," 2.

⁵⁶ See: Lei de Minas (Lei n.º 20/2014), Art. 30 (2).

⁵⁷ Li, "Engineering responsibility," 68.

⁵⁸ Sigismond A. Wilson, "Mining-induced displacement and resettlement: The case of rutile mining communities in Sierra Leone," *Journal of Sustainable Mining* 18, no. 2 (May 2019): 73.

say, and the worst thing was that they didn't receive the whole amount they were supposed to be paid.

The potters also believed the local government authorities influenced the mining company about the collective project because the company showed openness to giving them money to run their projects individually. Moreover, besides believing that the local government authorities were influencing the mining company to provide them with a collective project, the potters also believed they protected the mining company's interest more than the potters' interest. As one of the potters said, "The way the government is treating us shows that they defend the company more than the population. The potters' community all knows the government doesn't want us."⁵⁹

* * *

The day after we interviewed Marcos, we met four other men for a focus group discussion. We talked about the issues they faced with the government authorities and the mining company regarding the compensation for the bricks activities they lost with the resettlement process. The men were also part of the potters' leadership.⁶⁰

"They called us and said, 'You must go to Samoa to see the land,'" said B.K.

"Where is Samoa?" I asked.

"Samoa is on the way to Zobue [Zobue is one of the local regions of Moatize district]," H.D. replied.

"It's 70 or 80km from here to Samoa," added A.P.

"They said, 'We found land for you to cultivate. Each of you will have one hectare.' We reject that idea, 'How can you find land for us to cultivate without agreeing with us?' Then they said, 'What do you want?' We said, 'No, we won't take the project,'" said B.K.

"How would you go to Samoa?"

"They didn't tell us," B.K. replied "They only said they would give us land but didn't discuss the transportation issue. The potters' community is very angry, grumbling, 'Why is the government not helping us?' We are Mozambicans and have the right to choose what we want. They should not obligate us to take a collective project."

⁵⁹ Interview with a potter, Moatize, 26 September 2018.

⁶⁰ For ethical issues, I call them by initials chosen randomly: B.K, H.D, AP and L.T.

“Do you believe this issue will ever be solved?”

“If they want to give us the tractors and land to cultivate in Samoa, we prefer to lose everything,” said B.K. “We sat and talked with all the potters’ community, and this is what they say.”

“We can see that they don’t want to solve our problem,” added T.L. “We have asked them: If they think giving us money will not be possible, it is better to tell us, rather than spend our shoe soles walking there. Since 2012 until today, there has been no solution. They should tell us. They should feel that ‘this population is suffering.’ Look, now we are not doing our work anymore; we are unemployed and suffering. Don’t they feel sorry for us?”

“We are suffering, my brother,” said B.K. “You know how expensive life is nowadays (...), everything requires money. We need to buy food for our families and uniforms for our children to go to school. How are we supposed to do that if we have no jobs?! When we made bricks, we didn’t suffer as we are suffering today.”

“Have you tried to get jobs in the mining companies?”

“Nobody gets a job in the mining companies,” replied A.P. “They only employ people from the south [southern Mozambique]. They bring people from the south whenever there is a job opportunity while we are here.”

“Nobody gets a job there,” added H.D. “We are only watching the company like a football match. If they at least employed the potters in the mining company, there wouldn’t be many problems like we have today.”

“When they came to remove us, they promised many things,” said B.K. “They said if we wanted, we would work in the mining company because there would be many job opportunities. They even said that our children would also get jobs. But now, with all these we are going through, we can see that they were saying that to convince us to leave the place for them to exploit the coal.”

“This is what is happening here, and it hurts us a lot,” said T.L.

* * *

Despite the potter's resistance to the collective projects, the government authorities and the mining company kept insisting that they accept the projects. They even went to find land for the

agricultural project without the potter's consent. The potters were also consistent in their position — they didn't want a collective project and were even ready to lose everything rather than accept it. The potters' reaction toward the government and mining corporation proposal might be understood as an attempt to preserve the value of their labour against the capitalist assumption that monetises everything.

Sarah Trainor classifies and categorises environmental value in nine realms: aesthetic, cultural, economic, ecosystem, historical or heritage, moral, recreation, religious/spiritual, scientific and social. Thus, within these realms, “value is conceived of differently”. For instance, while economic valuation perceives goods as substitutable and nature as a commodity that can be measured and paid, moral, cultural and ecological valuation considers elements such as culture and personal identity, ecosystem integrity and sustainability for future generations. Moreover, Trainor argues that environmental decision-making must consider these realms of values and expressions.⁶¹ Usually, most decision-making processes in the context of the extractive mining industry and natural resources focus more on economic valuation and ignore other realms of values. The potters' issue is not an exception. Their displacement from where they developed their activity to give room to the coal mining extraction with a promise of compensation and alternative livelihoods was a decision entirely encapsulated in the economic value, as it did not take into account other factors such as the potter's identity toward the land, the space and labour.

One might argue that the brickmaking project proposed by the local government authorities and the mining company was similar to the potters' previous brickmaking project and that, their labour identity was respected in the decision-making process. However, despite the apparent similarity and compatibility between the projects, there are differences that cannot be ignored, not only in terms of the character of the project – what I would call the “material difference” – but also an ontological difference. The first difference, related to the project's character, is that the project presented by the government and mining companies was collective, while the project developed by the potters before resettlement was individual; each potter had their pottery kiln and managed it independently. The second difference, ontological, relates to the fact that the previous potters' brick-making project was an activity they had been carrying out for many years, and it became part of their lives. There was a sense of personal identity and attachment toward the land, space,

⁶¹ Sarah F. Trainor, “Realms of Value: Conflicting Natural Resource Value and Incommensurability,” *Environmental Values* 15, no. 1 (February 2006).

and labour, constructed over time and disrupted by extractive capitalism, all in the name of economic development. Therefore, they cannot be compensated because they are irreducible values.

The displacement and dispossession of the potters also contributed to the disruption of the existing livelihoods in the communities because many people depended on the bricks' activities to survive and sustain their families. Rao and Chandrakala stress that in mining-induced resettlement, the “expropriation of land removes the main foundation upon which people's productive systems, commercial activities and livelihoods are constructed.”⁶² Thus, as Bogumil Terminski argues, it leads to economic problems because people no longer have access to the resources they depend on for their livelihood.⁶³

The interruption of the potters' activity didn't affect only the potters but the entire chain that depended on that activity to live: the pottery kiln owners; the workers (people employed by the pottery kiln owners to help in the bricks production); and their families and relatives who also depended on the money from the activity. So, the potter's labour disruption messed up all the dynamics caused by their activity within the communities that allowed people to make a living, what James Smith calls “Movement.”⁶⁴ Thus, people became more vulnerable to poverty than they had been before the arrival of the mining corporations.

This resembles the ethnographical accounts presented by Smith about the artisanal miners in the Democratic Republic of Congo. When the government authorities shut down the artisanal mining in Bisie and other parts of eastern Congo to give space for the corporation mining companies, it affected the entire chain that depended on this activity, from the diggers, cleaners, potters, and hole owners to other types of ancillary business. To make the situation worse, the mining corporations did not employ most of these people, who lost their livelihoods. Consequently, the communities along the entire area of the mines started experiencing hardship and starvation.⁶⁵

⁶² K. Visweswara Rao and Smt P. Chandrakala, “Impact of Development-Induced Displacement and Resettlement in India: A critical Analysis,” *International Journal of Multidisciplinary Educational Research* 11, no. 7 (August 2022).

⁶³ Terminski, “Mining-Induced Displacement.” Also see: Simbarashe Gukurume and Felix Tombindo, “Mining-induced displacement and livelihood resilience: The case of Marange, Zimbabwe,” *The extractive Industries and Society* 13, (January 2023); Rao and Chandrakala, “Impact of Development-Induced Displacement”

⁶⁴ Smith, *The Eyes of the World*.

⁶⁵ Smith, *The Eyes of the World*, 41.

The lack of job opportunities in the mining companies was also one of the grievances presented by the potters. They argued that the Vale mining company, even after all the disruption they caused in the potters' communities, did not allow them to work in the company, and the few job opportunities that existed for the local communities were given to people from other regions, mainly southern Mozambique. As one of the potters said during our conversation, “Nobody gets a job there. We are only watching the company like a football match. If they at least employed the potters in the mining company, there wouldn't be many problems like we have today.”⁶⁶

⁶⁶ H.D.'s intervention in the focus group discussions with potters, Moatize, 27 September 2018.

Chapter 2
The Cemetery at Cateme
Overlooking culture and spirituality

On 28 September 2018, my research assistant and I arrived at Cateme resettlement. It was sunny and hot, the typical weather in that region of the country. We met a man we had heard about in many interviews and focal group discussions. He was known for his engagement in fighting for the resettled community's rights (I will call him Alberto).

"Just imagine, it is eight years since we were resettled, and we still don't have a cemetery here to do the burials," said Alberto, quite outraged. "The people from Mithethe neighbourhood came here in 2009, and we, from Chipanga, came in 2010 (...). We still don't have a cemetery."

"So, where do you do the burials?" I asked.

"When someone dies, we ask a neighbouring community to use their cemetery."

"Which community?" I asked.

"Did you see some houses on your way here before crossing the railway?" Asked Alberto.

"Yes, we did," I replied.

"Those are the native people of this region. We use their cemetery, but we have to pay some money for the burials."

"How much do you pay?"

"1,800 *meticais* (equivalent to 30 USD) or 1,200 *meticais* (20 USD) for the adults, and 600 *meticais* (10 USD) or 800 *meticais* (13 USD) when it's a child. So, it's a big issue to pay that money because we have no jobs here."

"Don't you have a cemetery here?"

"We have a cemetery, but the Vale company didn't officially hand it over to the community."

"So, the Vale company built a cemetery?"

"Yes, they built a cemetery. It has a fence and a chapel inside of it. But we are not using it."

"Why are you not using it?"

"Vale came here to hand over the cemetery officially. Then we said, 'First, we want to go to our old cemetery in Chipanga to take a small portion of the earth and bring it to the new cemetery so we can have a ceremony.' When we got to the old cemetery in Chipanga, there were no graves;

they removed all the human remains. So, that is the problem we have today. We went to the local government offices four or five times to discuss the issue with the local government authorities and the mining company but had no solution. So, the community said, ‘As you removed the human remains from the cemetery without informing us, you have to pay us money because we wanted to do ceremonies for our ancestors for us to use the new cemetery.’

“How much did you ask for?”

“We asked for 100,000 *meticaïs* (roughly 1,600 USD) per family. And we told them, ‘It’s only after the payments that we can go and do the ceremonies in the new cemetery.’ Then the mining company said, ‘No, a hundred thousand (...), for what?!’ We said, ‘It is for us to do our ceremonies.’ So, that is why we still don’t have a cemetery here.”

“And what does the local government say about it?”

“We had a meeting with the head of the district government and the mining company. The mining company said they would not pay the money because there was no reason for that. They don’t see the reason; that is why they went to remove the human remains; maybe they think those bones are from dogs.”

“Where is the cemetery,” I asked.

“It is nearby (...) that side,” he replied, pointing in the cemetery direction with his right hand.”

“I would like to know it,” I said.

“Let’s go,” he replied. And we left together.

When we approached the place, I saw a big wall painted white.

“That wall over there is the cemetery,” said Alberto. Right at the entrance of it was written: Cemitério de Cateme [Cateme cemetery]. As soon as we entered the cemetery, I saw a building painted cream and grey. The roof was green, the pillars were painted white, and a wood cross was placed above the entrance door. “It’s the cemetery chapel,” said Alberto.

There were grass and trees all over the yard, evidence that it was not in use. But one thing caught my attention: the chapel and its surroundings were clean.

“Who cleans the chapel?” I asked.

“A guard takes care of the place, and the mining company pays him.”

We entered the chapel, and there was the guard, a shirtless young man in his late twenties, lying on one of the long benches of the chapel and wearing tropical shorts. Alberto went on to

show us the inner side of the chapel. There was a rectangular structure made of cement and blocks at the front side of the room. It was where the casket was to be placed during the wake. On the back side of the room were benches made of cement and blocks lined up on both sides. The benches were for the people attending the wake.

Then, we left the chapel, and Alberto took us for a small round in the cemetery yard.

“This is the cemetery!” said Alberto “They destroyed our cemetery there. So, how are we supposed to do our ceremonies here? We wanted to do all the traditional ceremonies there and then take a portion of the ground and bring it here to start burying people.”

“So, now that all human remains have been put in a mass grave, what will you do?” I asked.

“There is no other way; they must give us money, and each family will do ceremonies in their houses. Then, we can also do a ceremony here in the cemetery and start doing the burials.”



Figure 1: Cateme Cemetery. September 2018.



Figure 2: Cateme Cemetery. September 2018.



Figure 3: The community leader and I, standing in front of the cemetery chapel. The guard is behind us. September 2018.

* * *

While scholars and civil society organisations have paid great attention to the extractive industry's economic, social, and environmental aspects in Tete province, less attention has been given to its cultural and spiritual aspects. Analysing the extractive industry and its socio-spiritual aspects in Tete and comparing the Vale resettlement with the two historical major resettlements carried out in the country, namely, the *aldeamentos* (villagisation) and *aldeias comunais* (communal villages), this chapter develops the argument that although the two previous resettlement were carried out by the government authorities – the colonial and the independent one – and the recent one by the Mining Companies, the results are similar: they all overlooked the cultural, traditional and spiritual factors of the local communities. The actors changed, but history repeats itself.

The violation of cultural and traditional issues was also one of the aspects that marked the two major resettlement in the country's history, the *aldeamentos* (villagisation), carried out by the Portuguese colonial government and the *aldeias comunais* (communal villages) implemented by the Frelimo government a few years after the independence. Borges Coelho's study on Tete resettlement shows how the colonial villagisation programme disregarded the local population's culture and tradition. For instance, villagisation affected the African traditional administration in two ways. First, it caused clashes between the African traditional leaders, the so-called *régulos*, and second, between them and the state administration at the local level. On the one hand, the compelling mobility of the rural population from different villages to the *aldeamentos* established by the colonial state created a situation whereby various *régulos* had to cohabit in the same village, causing power relations conflicts. Although the government authorities tried to avoid such kind of situation by creating *aldeamentos* composed of people from the same villages and simply maintaining the same traditional leadership structure, in many cases, given the spread of the Frelimo guerrilla war throughout the Tete district, the cohabitation of the population from different origins in the same *aldeamento* was inevitable. In cases where people from two or more villages had joined an *aldeamento* established in a pre-existing village, the guest *régulos* had to submit to the host *régulo*. On the other hand, although the colonial authorities recognised the importance of African traditional leadership (*régulos*), allowing them to lead the local commissions created in the *aldeamentos*, their action was entirely limited to a state administrative individual, usually a

white European officer chosen by the government authorities to surveil the work of the *régulos* and its commission. This fact removed the autonomy and the authority the African traditional leaders had before being confined into *aldeamentos*.⁶⁷

The population movement to *aldeamentos*, apart from their farms and properties, also meant leaving behind their ancestral land, where they had lived for generations; they abandoned the cemeteries and graves where their ancestors had been buried. The government authorities completely ignored all these aspects, which were part of the population system of cultural and traditional values.⁶⁸

The experience with the communal village's programme (*aldeias comunais*), implemented by the Frelimo government a few years after independence, was not different from the former *aldeamentos*. Many African traditional leaders, such as the *régulos*, were disregarded; some were even forced to move to the communal villages along with their population and to submit to other traditional leaders chosen by the government authorities. This was an attitude that many African traditional leaders saw as humiliation. The attitude also extended to traditional healers whose craft was vehemently opposed by the Frelimo regime. The government authorities accused the traditional healer of promoting conflicts between families, and if they were caught carrying out their craft within the communal villages, they were reprimanded and submitted to a political and ideological re-education process; the instruments and the garments used in the ritual process had to be collected and turned over to the government authorities.⁶⁹

This approach toward the African traditional leaders and healers was part of the socialist ideology adopted by the Frelimo government a few years after independence, which envisioned the creation of a new society and *homem novo* (new man). According to Frelimo authorities, the *homem novo* should be an individual free from obscurantism and tribalism. So, the *régulos* and the traditional healers were considered to be the agents of obscurantism and tribalism in the communities and had to be fought against.⁷⁰ As Harry West shows, focusing on the Mueda plateau region in northern Mozambique, the traditional authorities were replaced by young, relatively

⁶⁷ Not giving autonomy to the African traditional leaders in the *aldeamentos* was part of the government strategy to avoid a situation whereby once they allied themselves with Frelimo guerrillas, they dragged with them the entire population. See: Borges Coelho, "Protected Villages and Communal Villages," 236.

⁶⁸ Borges Coelho, "Protected Villages and Communal Villages,"

⁶⁹ Borges Coelho, "State resettlement policies," 72-73.

⁷⁰ Albert Farré, "Assimilados, régulos, Homens Novos, moçambicanos genuínos: a persistência da exclusão em Moçambique," *Anuário Antropológico* 40, no. 2 (December 2015): 212; José L. Cabaço, "O homem novo: breve itinerário de um projecto," in *Samora: homem do povo*, ed. António Sopa (Maputo: Maquero Editores, 2001).

well-educated people deemed perfect for Frelimo's new social project. Although these new individuals had to be elected by the people they would govern, Frelimo pre-selected the candidates to ensure that the former traditional authorities were excluded from the process.⁷¹

Just like what happened with the former *aldeamentos*, the confinement of the population in the communal villages in Tete implied abandoning their land and ancestral graves. The people lost the chance to conduct rituals and ceremonies honouring their ancestors. This experience happened almost everywhere in the country. Christian Geffray, analysing the *aldeias comunais* (communal villages) in the northern province of Nampula, argues that many people were forced to abandon their houses and communities to the communal villages, living behind not only their houses, stockyards, crops, fruit trees and land but also their ancestor's graveyard.⁷² Sérgio Chichava, for instance, points to Frelimo's neglect of the population's culture and tradition as one of the factors that contributed to the failure of the communal villages in the central province of Zambezia. Most of the people had family cemeteries beside their houses. So, moving to the communal villages meant living behind their ancestors, and they believed that it would have negative implications for their lives as they would no longer benefit from the ancestor's spirit protection against evil or diseases.⁷³

* * *

Before moving on with its resettling plan to initiate the coal mining extraction, the Vale Mining Company consulted with the affected population to hear their opinion regarding the cemetery within the concession area in Chipanga. Despite divided opinions among the population about the fate that should be given to the cemetery, most of them agreed that the remains should be exhumed and transferred to the new resettlement. So, the mining company promised they would build a cemetery in Cateme – one of the two places where the affected population would be resettled – and transfer the human remains. Between 2009 and 2010, the mining company carried out the resettlement process, and 1005 families were resettled in two places: 717 families went to Cateme

⁷¹ Harry G. West, "This Neighbour is not my Uncle!: Changing Relations of Power and Authority on the Mueda Plateau," *Journal of Southern African Studies* 24, no. 1, Special Issue on Mozambique (March 1998). A similar experience happened in Erati district, in Nampula province. See: Geffray, *A causa das Armas*, 18.

⁷² Geffray, *A causa das Armas*.

⁷³ Chichava, "They can kill us," 122-123.

(40 km away), and 288 families went to *25 de Setembro* neighbourhood within the municipal area. However, the exhumation and the transfer of the human remains from the Chipanga cemetery in Cateme depended on the completion of the construction of the new cemetery. At the time of the removals, the cemetery was still under construction.⁷⁴

When the company finalised the construction of the new cemetery in 2012 and decided to hand it over to the resettled community officially, the population asked to return to their old cemetery for a farewell ceremony before transferring the human remains to the new cemetery. That is when they learnt that the human remains of their beloved families had been exhumed without their consent. It is believed that the bones have been put in a mass grave within the Moatize municipal cemetery.⁷⁵

The exhuming of the human remains created enormous discontent among the resettled population, as they regarded this act as disrespectful to their ancestors and violated their cultural and traditional values. Despite having a cemetery built by the mining company in the resettlement, it was not in use. The population said they wouldn't use the cemetery before all the ceremonies and rituals were correctly observed. When someone died in the community, they used the cemetery belonging to a local village already living in Cateme before the Vale resettlement was carried out. For the burials, they had to pay the leadership of the local village a burial fee between 1,200 *meticais* (20 USD) and 1,800 *meticais* (30 USD) for adults and between 600 *meticais* (10 USD) and 800 *meticais* (13 USD) for children.⁷⁶ Despite all the financial costs that burials entailed, something they did not experience in their old communities, the population argued that they would continue using the neighbouring village's cemetery until the company complied with their demand for ceremonies for their desecrated ancestors.

The population's demand for ceremonies can be seen as an attempt to honour their ancestors who, according to them, had been “disgraced” by the mining company. As in many African cultures, the veneration of the dead is extremely important among the Nyungwe people.

⁷⁴ See: Mosca and Selemene, *EL dorado Tete*, 20.

⁷⁵ Most of our interviewees didn't know for sure where the human remains have been buried. But they believe they have been put in a mass grave in the Moatize municipal Cemetery.

⁷⁶ The Vale resettlement was established close to a local village which was already in Cateme before the Vale resettlement was carried out. It's important to note that there was an *aldeamento* in Cateme during the Portuguese colonial power with the same name (Cateme). The *aldeamento* was located [still today] along the Moatize-Beira railway line and was named after a previously existing railway stop. After independence, as with many villagisations, the Frelimo government turned Cateme into a communal village. See: Borges Coelho, “Protected Villages and Communal Villages,” 308-309.

Ceremonies for the dead are an act of veneration to the ancestors' spirits so that they may continue watching over the living. The ceremonies and the rituals are usually accompanied by food and drinks and are led by a traditional leader or another respected person within the community.

Most of our interviewees mentioned the importance of honouring the dead in their traditions and culture. Despite the person being no longer alive, they believe they are still connected with them:

If we are saying we want to do the ceremonies for our ancestors, it's because we have a connection with them. That is why, on Sundays, people go watering the graves. They go there to do ceremonies to celebrate the passing of one year or five years after the death of their loved ones. This is our culture, and they should respect that.⁷⁷

As Fobella *et al.* argue, in many African cultures and traditions, the rituals and ceremonies paid to the dead are regarded as a symbol of reverence and honour. They are believed to preserve the connection between the living and the dead. The ancestors are believed to have a significant influence over the living or descendants, and they are always around watching, guiding and protecting them in their daily activities.⁷⁸ For instance, the Igbo and Yoruba people in Nigeria believe the deceased lives on and communicates with those still alive. For them, death is merely a transition from the physical to the spiritual realm. Thus, the ceremony for the deceased is divided into two phases: the physical burial ceremony and what they call a transition ceremony.⁷⁹ James Smith, for instance, shows how the local communities in the artisanal mining in the DRC believed the ancestors were crucial to the success of mine extraction and even for the abundance of the minerals in the ground. Despite their invisibility, "ancestors were described as living in a parallel world and time, a past that was in the present (...), and proper communication with the ancestors involved offering the food that the dead used to eat and drink."⁸⁰

⁷⁷ Interview with a young man in Cateme, Moatize, September 27, 2018.

⁷⁸ Temenu A. Fobella, Ketrine Mpeti-Phiri and Cynthia Chidziwitsano, "Tradition and Modernity: African Culture Perspectives on Death and Afterlife," *Pleho Institute of Research, Language and Culture Journal* 4, no. 5, (May 2023).

⁷⁹ Oladosu O. Adebolu, "The Living Dead: Anthropological Interpretation of Rites of Passage in Umuahia and Emure Ekiti," *The Journal of Traditions & Beliefs* 2, no. 18, (2016).

⁸⁰ Smith, *The Eyes of the World*.

The resettled community in Cateme believed that if they started using the new cemetery without doing the necessary rituals and ceremonies, they would betray their ancestors, and it would bring a curse such as massive death and suffering to the families and the community as a whole:

We have told them we will not use the cemetery without doing all the ceremonies. If we use the cemetery, we will betray our ancestors, and it will bring a curse to our lives. They can't just remove the remains of our families without informing us. You know, we are already suffering here in Cateme. They promised many things before the resettlement, but they still haven't kept their promises. But to disrespect even the dead — is too much. And when we asked them to give us money for the ceremonies, they refused. They think we are only concerned with money (...). They don't understand.⁸¹

In many African cultures, the ancestors are believed to have the power to bless or curse their descendants. If the dead are not properly buried, they will not be received into the land of their ancestors, and their spirits may create sickness and misfortune.⁸² For instance, the Bangala and Acholi people in Uganda, the Himba in Namibia, and the Bayang in Cameroon believe that the ancestors' spirits can provide blessings or curses to the living, depending on how they are treated. So, the ceremonies and rituals for the ancestors are seen as a way of venerating and pleasing them to avoid misfortune and suffering in the community.⁸³ It is the same with the Yoruba people in Nigeria; the ceremony for the dead “is known to protect the living from harm, and the anger of the spirit of the deceased.”⁸⁴

According to the people we interviewed, the destruction of the cemetery disrupted not only the relationship with their ancestors but also their family and community history and heritage. For the local community, the burial sites are perceived to preserve the family and community history for future generations. As a community leader in Cateme said, “A cemetery has a very important meaning for us (...). The children born will know their family's history; they will know where the grave of their grandfather, father, mother, cousin, or brother is (...).”⁸⁵

⁸¹ Interview with a community leader in Cateme, Moatize, September 27, 2018.

⁸² Lois K. Fuller, *A missionary Handbook on African Traditional Religion* (Jos: African Christian Textbooks, 2001).

⁸³ Fobella, Mpeta-Phiri and Chidziwitsano, “Tradition and Modernity”

⁸⁴ Adebolu, “The Living Dead,” 7.

⁸⁵ Interview with a community leader in Cateme, Moatize, September 27, 2018.

The socio-spiritual issue discussed in this chapter isn't unique to the country's mining-induced resettlement experience. Anthropologist Nikkie Wiegink studied the socio-spiritual aspects of the Mualadzi resettlement (located 4 km from the Cateme resettlement), carried out by Riversdale and Rio Tinto, to implement the Benga coal mining project. In her study, she shows how the resettlement carried out by these companies ignored the spiritual and cultural factors of the resettled population. Despite the population's request for the exhumation of the human remains from the old cemetery in Capanga to the new cemetery allocated by the mining company in Mualadzi, the transference never happened. Thus, the resettled population decided not to use the cemetery in Mualadzi allegedly because it would bring a curse to the community, and many people would die. Like the Vale resettled community case, this community also preferred to do the burials in a neighbouring village in Cateme (around 4 kilometres away)⁸⁶ or even travel a long distance (around 40 kilometres) back to the old cemetery in Capanga.⁸⁷

Another example was reported in Topuito, in the northern province of Nampula, where, in 2007, Kenmare, a mining company, had to resettle the population to initiate the extraction of heavy sand minerals.⁸⁸ Unlike the Cateme experience, the mining company in Topuito exhumed and transferred the human remains from the community cemetery in Topuito to the new cemetery built at the resettlement site (Mutitcoma). All the rituals and ceremonies were observed before the exhumation process. For the ceremonies, each family with a relative buried in the cemetery received from the mining company an amount of 5,775 *meticaís* (roughly 96 USD). The exhumation process was done through a South African company specialising in that job. The bones were cut into small units of about 40cm each to fit in the small boxes used to pack them and then carried to the new cemetery. This process raised dissatisfaction among the resettled population, who had never witnessed anything similar. The fact that the bones were cut into pieces caused grievance among the families who saw the act as blasphemy to the dead.⁸⁹

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⁸⁶ They used the cemetery of a local village in Cateme, the same used by the population resettled by the Vale mining company. They also pay a burial fee: “1,000-1500 *meticaís* (\$13-20), and for the burial of a child, the payment is 700 *meticaís* (approximately \$10).” See: Wiegink, “Dislocation of the dead,” 99.

⁸⁷ Wiegink, “Dislocation of the dead”

⁸⁸ Topuito was part of the Moma district, before passing to Larde district in 2013. See: Lei n. 26/2013, Art.1 (b).

⁸⁹ Selemene, *Questões à volta da Mineração*, 13-14; Vanito V. M. Frei, “No país do mano Muça, eu sou carvão: Implicações socioterritoriais do megaprojectos de minerais nas comunidades locais da província de Nampula” (Master diss., Universidade Federal de Goiás, 2017): 326-328.

“We know from the mining company that the local government authorities knew about the exhumation of the bodies,” said the man – let us call him Mendes.

“How did they give you that information?” I asked.

“When we complained about the exhumation of the bodies from the cemetery,” Mendes replied, “the district government authorities summoned the mining company and the community leaders for a meeting to discuss the matter. The local government authorities asked us how we wanted the problem solved. Then we said we should go back and discuss the matter with the community. After talking with the community, the community leaders wrote a letter demanding the mining company pay the affected families to carry out ceremonies for the ancestors. We took that document to the meeting with the local government authorities and the mining company. But unfortunately, the mining company did not give us a good answer. Some days later, they wrote us a letter saying that they would not pay for anything because both the municipal and district government authorities had been informed about the exhumation of the bodies. That is how we learned that the government authorities knew it.”

“What did you do after receiving the mining company’s letter?”

“What could we do, my brother? They said the government authorities knew about it; what could we do?” Mendes replied and continued talking, “I don’t understand how they could allow that to happen. They are our parents, and they know our traditions very well. To allow the company to remove the bones of our families and put them into a mass grave?! We have never seen it here. So, we realised that the government doesn’t care about its people (...). That is what I can say.”

“So, what will the community do if the mining company doesn’t pay for the ceremonies?” I asked.

“Nobody will use the new cemetery without the ceremonies, I am telling you!” Mendes replied and continued talking: “We had several meetings in the community to discuss it, and everyone is aware of that. Nobody is willing to experience a curse in the family. If we pay to use the neighbouring village’s cemetery, it is not because we have money. As you know, we are suffering here in Cateme. With no job opportunities, people must work hard, even to feed their families. The population are always complaining about it in community gatherings because they can’t continue paying for the burials. We are facing hard times in this resettlement. Everything is difficult (...). The mining company said they did all the ceremonies before exhuming the human

remains, and some community leaders from Bagamoyo were also invited to conduct the ceremonies. But that is not true because we went to ask the community leaders, and they told us they did not participate in any ceremony.”

“So, do you think the mining company lied?”

“Sure, they lied (...). They thought we could believe what they said. But we know how those people are. It is not the first time that they have done that. They might have agreed to this thing of exhuming bodies with the local government authorities. They always find excuses when we complain about our rights (...). And the local government authorities do nothing to help us. We even talked with some civil society organisations to help us with this matter.”

“What civil society organisation did you talk to?” I asked.

“Some local organisations used to come here to talk with the community. They ask us about the resettlement,” Mendes replied and continued talking, “For instance, there is an organisation called RAMBOG.⁹⁰ Whenever we have problems here in the community, we talk to them. They help us talk to local government authorities to solve our problems in the community. Even when we meet with the local government and the mining company, they also participate in the meetings. So, they know about the cemetery issue, and they even came here with some people from Maputo to ask us about this same issue (...).”

* * *

The mining corporation's leading role still characterises the extractive industry in Africa, whilst the government's role has been the target of criticism. The capacity of the governments to impose themselves on the mining corporations to avoid violating the local communities' rights and values has been ineffective. Most of the time, the government authorities turn a blind eye to the many atrocities of the mining companies, causing a lot of dissatisfaction among local communities, who see their lives completely disrupted. The imbalance of the power relations between the government, the mining corporations and the local communities also determines how different matters are handled at the local level. The cemetery issue discussed in this chapter is not an exception. Like in the potter's case analysed in the previous chapter, it is interesting to see how

⁹⁰ RAMBOG - *Rede das associações paa a boa governação Moatize* (Associations Network for Good Governance) is a local civil society organisation that works close to the communities in Moatize.

the imbalance of power between the mining company, the local government, and the resettled community influenced how the exhumation of human remains from the Chipanga cemetery was dealt with. Despite the consultation and the agreement between the mining company and the local community regarding the transference of the human bones to the new cemetery in Cateme, the decision to exhume and put them in a massive grave was the result of a decision-making process of which the affected community was not part of.

The mining interest in initiating the coal mining extraction, even violating the tradition and cultural values of the local community, shows how, in the context of extractivism, the interest of the mining corporations and the government authorities override the interest and cultural values of the local communities. It seems that the main focus of the mining company and the local government authorities was to move on with the coal mining extraction, ignoring all other social externalities resulting from that decision. Most of the time, the social externalities of the mining extraction encapsulate some violence to the local communities, what Billon and Middelorp call “contemporary colonialism”.⁹¹ This takes us to Sarah Trainor's approach to the necessity of considering the realms of values other than economic value in natural resource decision-making. Thus, in this specific case, the cultural and religious/spiritual values argued by Trainor should have been observed by the Vale mining company before exhuming the human remains from Chipanga cemetery.⁹²

As we can see from the discussion above, the past resettlement processes share many similarities with the current mining-induced resettlement. The objectives of the two historical resettlements differed from the current ones. Both in the villagisation and the communal village programmes, the main objective of resettlement was to exercise control over the country's rural population. The colonial villagisation was part of a counter-insurgency strategy to avoid the rural population's contact with the Frelimo guerrillas spreading their incursions throughout the country – the military strategy was the priority. This may also explain why most of the villagisation in Tete did not respect the availability of fertile land, water supplies and other ecological factors favourable to the local population's survival.⁹³ The control intended with the communal villages had a more administrative and political nature. Although the guerrilla Renamo emerged in the first

⁹¹ See: Gudynas, “The New Extractivism of the 21st Century”; Le Billon and Middelorp, “Empowerment or Imposition,” 77; Gudynas, “Extractivisms: Tendencies and consequences”

⁹² Trainor, “Realms of Value”

⁹³ Borges Coelho, “Protected Villages and Communal Villages,”

years of its implementation, Borges does not see a cause-and-effect correlation between them.⁹⁴ However, he doesn't reject the existence of a relationship between the war and communal villages. As he argues, the conflict was linked to the communal villages "In the sense that the war caught rural people in a very weak state. From then on, people nurtured an ambiguous relationship with the Government, refusing to make special efforts to defend the villages which they did not consider as their own."⁹⁵ The recent resettlement processes aimed to make room for mining extraction. Nevertheless, despite the differences regarding their objectives, all the resettlement programmes share many similarities regarding their outcomes.

Even though the mining companies have a leading role in the current mining-induced resettlement, we should not forget that their actions or mining extraction activities do not happen in an isolated context; there is a whole regulative framework to which their activities must comply and that framework, although with some criticism in terms its legitimacy and effectiveness due to the institutional fragility character of many countries rich of natural resource, is shaped by the national governments. Thus, the government's role in the mining-induced resettlement should not be taken for granted because it also determines and influences how the extractive industry takes place at the local level.⁹⁶

⁹⁴ In some places, Renamo's arrival accelerated the communal village process. For example, as Geffray shows, although the communal village programme had already been implemented in Nampula, Renamo's entry into the province in March 1984 caused the Frelimo government authorities to force the population that still lived scatteredly to enter communal villages to avoid the population's contact with the Renamo guerrillas. See: Geffray, *A causa das Armas*, 22.

⁹⁵ Borges Coelho, "State resettlement policies," 91.

⁹⁶ Bonnie Campbell, ed., *Mining in Africa: Regulation and Development* (London: Pluto Press, 2009).

Chapter 3
They Don't Care About Us
Ecology, local communities and mining industry in Moatize

On a hot afternoon in September 2018, Amon and I sat conversing with Almeida, a young blacksmith from Bagamoyo.

“The mining site is close to us. Sometimes, we can't see or smell the coal dust, but we are inhaling it,” said Almeida. “One day, I was in the toilet, and I heard a big blast – it was a mine blasting. My wife shouted loudly, ‘Look at the dust, look at the dust.’ Suddenly, the sky got dark during the daytime. I came out of the toilet and saw coal dust coming from the ground. It looked like a cloud blocking the sun, but it was coal dust.

“Cracks in the houses are countless, my brother. This is like, for instance, when you want a girl. After getting her and you are dating, someone says, ‘My brother, that girl, she is not what you think she is. She kills men.’ So, as you are worried, you might break up your relationship and leave her because of what people are saying. But all these things people say are only to test your relationship to see if you're really grounded and love each other. So, this is exactly the same as these people from the mining company are doing to us. They shake our houses to see if they are strong enough. If you have built your house with mud, it will have cracks. Like these two houses of mine, they have cracks.”

“Have you ever talked to the municipality or the district government about the pollution?” I asked.

“Hah, my brother, who will listen to you? Who will listen to you?” said Almeida. “We have told them many times, my brother. We don't know what is going on with this government. In Chirodzi, the mining company resettled the families (...). They built new houses – I watched it on TV. They resettled those families because of coal dust. They were living close to the mining site. But here, nothing. Maybe it is because there are many families here. But they should have resettled us in phases – five hundred or three hundred people at a time.”

“Do people want to be resettled?”

“Yes, they want because living like this isn't good. We are dying slowly, my brother. Flu never ends for us. We are always inhaling the coal dust day and night. The dust gets into the house.

Even the maize meal inside the house gets dusty. If you leave the maize meal inside the house for three days, you will see what will happen. When my wife washes clothes, she hangs them only for a few minutes and then takes them out to keep inside the house. Just look at the ground; it's changing — it's getting dark.”

“In your opinion, who do you think is responsible for your continuing here even with all these issues, the government or the company?”

“Aah, my brother, my brother, it is not the company's fault. The fault lies with those who are ruling the country. The fault is with the government. We can't blame the company. I told you that in Chirodzi, people are being resettled. The governor, Paolo Awade, went there to see the houses. When they come and say, 'We want to explore that area.' The government should have said, 'If you want to do that, resettle the population first. But you must build good houses for them. Put there all infrastructures, schools, electricity and water.' So, the fault lies with the government. If the mining company is making noise here, it is because they agreed with the government. So, we can't blame the company.”

“What do the municipal authorities say about the air pollution?”

“People talk about it in the meetings with the municipal authorities. Many people are saying they won't vote in the coming elections.”

“They won't vote because of these issues?”

“Yes! Even me, I won't vote. How can I vote for someone who doesn't help us? I can't do that. We are suffering and eating badly, and I will vote for someone who already has money to get more money. It is like taking a small bucket of water and pouring it into the Zambezi River. What will the river feel with that water? Nothing. So, I can't.”

“Moatize is bad, my brother,” Almeida said. “If they don't want to solve this issue of coal dust, at least they should put water here. At least we would say, 'We have water.' Just see how dirty the houses' walls are. If we had enough water, we would wash the walls. But now imagine coal dust without water. That dust demands us to drink more water. That is why the diseases never end, mainly flu and cough (...). The children are always crying because they are inhaling coal dust. This is worrying us (...). Just see how windy it is these days. The wind blows the coal dust from the mining site to the houses in the community. Even the trucks transporting the coal to the coal terminal also spread the coal dust through where they pass by.”

At the beginning of our conversation, Almeida had mentioned the house of a lady whose yard was completely dark because of the mining coal dust. When we closed our conversation, he said he wanted to show us the lady's house. We agreed and left, walking.

As we walked, I saw an abandoned house with no roof, the foundation entirely degraded, and the walls full of cracks. It seemed to be abandoned for a long time. I didn't ask Almeida about it; I thought it was normal. "Maybe the owners moved to another city or something similar," I thought, until I saw the second and the third abandoned house. That is when I decided to ask Almeida about those houses. "Why are these houses abandoned?" I asked.

"Oh, my brother, many people are living and trying to find new places to stay. People are trying to find their own means to buy land in other neighbourhoods, such as Bairro Cinco (the name of a neighbourhood in Moatize City). They are tired of suffering here," Almeida replied.

Finally, we arrived at the lady's house, which was a few meters from the mining company's fence. He took me around the courtyard to show me how black the ground was. It was dark all over, and the house's walls, windows, and doors were all dirty with coal dust. The trees also did not escape the coal dust; their leaves were all covered with coal dust.



Figure 4: This photograph shows coal dust spreading to the air after a mining blast. September 2018.



Figure 5: An abandoned house in Bagamoyo. September 2018.



Figure 6: António and I at the lady's home, where the ground was dark due to the coal dust. September 2018.

* * *

To initiate its project of coal mining extraction, the Vale mining company resettled 1005 families: 717 families went to Cateme, 40 km away, and 288 families went to *25 de Setembro* neighbourhood within the Moatize municipal territory. The initial resettlement plan of the mining company covered a total number of 1,313 families, but in the end, 308 families of that number refused to go to either place and agreed with the mining company to receive an *indeminização assistida* (assisted compensation). So, the 308 and the other people not covered by the resettlement

plan remained close to the mining site.⁹⁷ It wasn't long before the local communities began feeling the socio-environmental effects of the coal mining extraction.

Drawing on the coal mining industry in Tete, Mozambique, this chapter argues that the Vale coal mining extraction has caused serious environmental damage in the local communities in Moatize, such as air pollution, sound pollution and ground shaking. Through an engagement with the general literature on the environmental effects of extractive industry and the *mining encounters* approach,⁹⁸ I will demonstrate not only how these ecological issues conditioned the daily life of the local communities but also how they have constantly been negotiated by the various actors (the local communities, government authorities, the mining company, and civil society organisations), characterised by differences in terms of objectives and viewpoint.

Air pollution caused by the Vale coal mining was one of the main concerns presented by the local communities in Moatize. The mining blasts raised enormous clouds of dust that spread through the air, reaching all over the city, mainly the communities close to the mining site. During our field research, we heard many stories about the local community's experience with the coal dust and how that affected their daily lives. For instance, José Adamo, a resident from Bagamoyo, told us how activities such as washing clothes and house cleaning had been seriously conditioned by the coal dust:

There is coal dust everywhere (...). If we want to put the maize meal in the sun, it must be from 8:00 am to 10:00 am. After that, we must remove it because if we don't remove it, we won't eat maize meal; it will be a coal meal. Even when we hang white clothes on the rope, we must remove them immediately; otherwise, we will have to rewash them. Even inside the house, we must always clean. We must clean the furniture and wash the curtains every two days. When you wake up in the morning, you must take all the sheets and the mattress off the bed and keep them where the dust cannot reach them. In the evening, you put them back and sleep. If you don't do that, the bed will be dusty.⁹⁹

⁹⁷ Selemane, *Questões à volta da Mineração*, 21-22; Mosca and Selemane, *EL dorado Tete*, 20.

⁹⁸ Pijpers and Eriksen, "Introduction: Negotiating the Multiple Edges of Mining Encounters," 2.

⁹⁹ Interview with José Adamo, Moatize, September 25, 2018.

Although air pollution affected mostly the communities near the mining site, it was an issue felt by the entire population of Moatize City. For instance, the residents of *25 de Setembro* neighbourhood, despite its relative distance from the Vale mining site, also complained about air pollution. The presence of coal dust was noticeable on the houses' roof and ground, and even inside:

The emissions of particulates are excessive. We can't see it on top of the houses, but if you put water on the roof, you will see (...). You will see how the roof is. Even inside the houses, there is coal dust. You can see coal dust under your feet when you stay home without shoes. And the way the roofs of the houses were projected do not prevent the dust from getting inside. So, the dust enters from the roof.¹⁰⁰

The Vale mine site was not the only source of air pollution that affected the communities in Moatize. Some communities also complained about the coal dust spread by the trucks belonging to the Jindal mining company when they transport coal from the Chirodzi mine in the Marara district to its coal terminal in Moatize, from where the coal is transported to Beira Port by train.¹⁰¹ Due to the wind, typically in the region, the air pollution continued even after the coal was unloaded at the coal terminal. Whenever the wind blew, the coal dust spread to the houses. A community leader in the Liberdade neighbourhood told us about their experience with coal dust pollution:

There is also the dust from the coal terminal. The Jindal mining company opened a road here to access its coal terminal (...). This is the worst problem here because we are close to the coal terminal. When it is windy, there is coal dust everywhere. Today, it is better. Otherwise, you would see it: it gets all dark. We put the maize meal inside, and when things are calm, we take it out. The people in this community are very clever and know when things are wrong. As a community leader, I can only sensitise them, only that. You must use politics,

¹⁰⁰ Interview with Pedro sebastião Vilanculos, Moatize, September 29, 2018.

¹⁰¹ The Chirodzi mine is explored by Jindal Mozambique *minerais Limitada*, which is part of the Indian group Jindal Steel and Power Ltd (JSPL). The company initiated its activities in 2013 and has a concession for 25 years. The coal is transported by trucks to the coal terminal in the former park of the ex-national coal mining company *Empresa Estatal Carbonifera de Moçambique* (CARBOMOC). From there, the coal is transported by train to the Beira Port and transported to the international market.

‘Look, guys, when you are farming, there is no dust?’ But I also know that I am suffering. But what can I do, my brother!?! (...). We are trying to take our canoe forward. So, I act as if I am not feeling anything (...).¹⁰²

The example above illustrates the complex chain of environmental damage caused by mining extraction, which goes beyond the boundaries of extractive operations. As Alberto Acosta argues, “The harmful effects not only arise in the exploration and exploitation phases, when gigantic holes are dug in mother earth or when toxic chemicals are used to process the minerals extracted but also when the material dug up is moved around, affecting large swathes of territory.”¹⁰³ This challenges the limited perspective of the “space” of mining and its effects on the local communities.

Another effect of coal mining extraction was noise pollution. Noise pollution was caused both by the mining blast and the machinery used in the mining activity at the Vale mining site, as well as by the trucks from the Jindal mining company that transported the coal to the coal terminal in Moatize. These effects were mainly felt by the communities closer to the Vale mining site and the Jindal coal terminal. Our interviewees complained of suffering from noise pollution not only during the day but also when sleeping at night.

Sound pollution caused by mining extraction is rarely mentioned in studies on the environmental effects of extractivism. However, like the other ecological effects of the mining industry, it shouldn’t be taken for granted because it also affects the daily life of the communities around the mining sites. Due to its intense character, the mining activities are usually uninterrupted; they can run 24 hours a day, forcing the local population to deal with all forms of sound pollution day and night.¹⁰⁴

Besides the air and sound pollution, the mining blast caused ground shaking in the communities, resulting in house cracks. For instance, Lemo, a man we interviewed in Bagamoyo neighbourhood, had three houses in his yard, made of local bricks and concrete, a relatively improved house for the typical houses in the area, and all had cracks. “Unfortunately, this is what we are living today. The blast causes not only air pollution but also cracks in the house. As you

¹⁰² Interview with Paulino Laissone, Moatize, September 22, 2018.

¹⁰³ Acosta, “Extractivism and Neoextractivism,” 70; Filipe Calvão, Matthew Archer and Asanda Benya, “Global Lives of Extraction”, *International Development Policy / Revue internationale de politique de développement* [Online], 15 (November 2023).

¹⁰⁴ M. Naveen Saviour, “Environmental impact of soil and sand mining: A review,” *International Journal of Science, Environment and Technology* 1, no. 3 (2012):129-130.

can see, my houses have cracks all over. Do you see the cracks by the door?! We are suffering.”¹⁰⁵
A community leader in Nhantchere also told us about the cracks in his house:

As you know, our houses are precarious and cannot withstand the shaking of the ground. Almost every house has cracks. Do you see this house of mine? It has a big crack at the backside. The wall is already opened. So, I am considering destroying the wall and building a new one. Otherwise, it might kill someone one day. It might not be someone from my family, but as you can see, many people are here. So, someone might be sitting near the house, and suddenly anything might happen. That is why I plan to destroy the wall and build a new one.¹⁰⁶

The local population argued that the air pollution, sound pollution and ground shaking caused by the coal mining extraction negatively affected their health. On the one hand, many people in the communities associated coal dust pollution with frequent diseases such as cough, flu and conjunctivitis. People also mentioned that the sound and the ground shaking caused by the mining blasts affected people with hypertension. Whenever the blast occurred, it triggered hypertensive crises in those people, and some of them even passed out. Lourenço Arnaldo, a resident from Bagamoyo neighbourhood, told us about a story of his wife who suffered from high blood pressure:

My wife suffers from high blood pressure. Two months ago, after a mining blast in the company, she fell and passed out, and we had to take her to the hospital. The doctors checked on her and found her blood pressure was high. So, the doctor prescribed her medication. The hospital pharmacy did not have the medication, and I had to buy it in a private pharmacy for five hundred meticaï. After taking the medicine, she recovered. The doctors also instructed her to drink water with sugar whenever she felt she was having a crisis. But it’s difficult to handle it due to the frequent mining blasts.¹⁰⁷

¹⁰⁵ Interview with Lemo, Moatize, September 25, 2018.

¹⁰⁶ Interview with José Sainete, Moatize, September 24, 2018.

¹⁰⁷ Interview with Lourenço Arnaldo, Moatize, September 25, 2018.

The impact of the mining blasts and air pollution on the local communities is part of what Nixon calls “slow violence.” According to Nixon, this is the kind of violence that “occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all.”¹⁰⁸ This means that the effects of such kind of violence on humans and nature are slow and usually do not manifest in a short period. Still, they might have drastic repercussions in the long term. As a young man from a local civil society organisation stressed, “This might cause a big problem in the future. We might not feel it now because we are still living normally. Not only humans, but air pollution affects all kinds of life: plants and other animals (...).”¹⁰⁹ So, the entire ecosystem is affected by the violence of the extractive industry. As Navas *et al.* argue, the ecological violence of the extractive industry “goes beyond individual (...) to impact communities as a whole, nature itself and the human-nature.”¹¹⁰ It is important to note that although underground mining is also a cause of ecological devastation, the effects of open-pit mining are considered more devastating. In the words of Gudynas, it is “An ecological amputation.”¹¹¹

Complaints about the effects of the coal mining industry on people’s health have been reported in many contexts around the world, such as in the USA, India and South Africa, to mention a few. Many studies conducted in the USA found a correlation between coal pollutants and respiratory conditions such as asthma, chronic obstructive pulmonary diseases (COPD), lung diseases, coronary heart diseases (CHD) and nervous system-related diseases such as stroke and loss of intellectual capability.¹¹² For instance, the populations in Sarasmal, Kosampali and Dongamouha villages in Chhattisgarh state in India complained of symptoms related to Musculoskeletal pain, dry cough, eye diseases, loss of hair, chest pain, skin illnesses and breathing difficulties. A medical analysis conducted in those villages confirmed most of these illnesses.¹¹³

¹⁰⁸ Nixon, *Slow Violence*, 2.

¹⁰⁹ Interview with Pinho Pedro Pires, coordinator of Moatize Associations Network for Good Governance (RAMBOG), Moatize, April 27, 2018.

¹¹⁰ Grettel Navas, Sarah Mingorria and Bernardo Aguilar-González, “Violence in environmental conflicts: the need for a multidimensional approach,” *Sustainability Science* 13, (March 2018): 658.

¹¹¹ Gudynas, “Extractivisms: Tendencies and consequences,” 65; Niharranjan Mishra and Nabanita Das, “Coal Mining and Local Environment: A Study in Talcher Coalfield of India,” *Air, Soil and Water Research* 10, no. 1 (September 2017): 3-4.

¹¹² Alan H. Lockwood, Kristen Welker-Hood, Molly Rauch, Barbara Gottlieb, “Coal’s Assault on Human Health: A Report from Physicians for Social Responsibility,” (2009).

¹¹³ Ms Rinchin, Prabir Chatterjee, Manan Ganguli, Smarajit Jana, “The Health and Environmental Impact of Coal Mining in Chhattisgarh,” (India: People First Collection, 2017).

In South Africa, the local communities around the mining sites in Mpumalanga province, the biggest coal reserve in South Africa, complained of suffering from diseases such as asthma, heart diseases, and kidney diseases. A scientific study among children in some schools in the same region showed a direct relationship between air pollution and respiratory diseases such as bronchitis, chest wheezing, asthma, chest cough, respiratory infections and phlegm.¹¹⁴

* * *

“Do you think these issues will ever be solved?” I asked.

“Maybe by changing government, things will get better,” said the man – let us call him Lemo – and continued talking, “But if we have this same government in power, nothing will change. If the government really cared about its people, it should have told the company to resettle all of us and continue doing its work.”

“Why didn’t they resettle you yet?”

“The Vale company said, ‘We don’t have any problem resettling you. If the government says so, we will resettle you even today.’ So, we see that the government authorities only need money and don’t care about the human beings living here – they don’t care. They are only concerned about gaining more and more money for themselves.”

“Have you ever tried to talk with the government or the company about these issues?”

“When we go to the company to complain about these issues, they tell us, ‘Go and talk to your government because we already made a deal with your government.’ Concerned with the situation, the population went to the streets to protest. But, when we do that, the government instruct the police to shoot us. I don’t know why things are like this. Maybe because we are ‘Xingondo.’¹¹⁵ That is why they are mistreating us. If it were their nephews or uncles living here, they wouldn’t allow the mining company to do all these they are doing with us. In my opinion, the

¹¹⁴ Bonisile N. Shongwe, “The Impact of Coal on Environment and Community Quality of Life: A case Study Investment of the Impacts and Conflicts Associated with Coal Mining in the Mpumalanga Province, South Africa” (Master disser., University of Cape Town (UCT), 2017): 67-68; Victor Munnik, Geraldine Hochman, Mathew Hlabane and Stephen Law, *The Social and Environmental Consequences of Coal Mining in South Africa: A Case Study*, (Cape Town: Environmental Monitor Group, 2010); Adejoke C. Olufemi, Paul O. Bello and Andile Mji, “Conflict implications of coal mining and environmental pollution in South Africa: Lessons from Niger Delta, Niger,” *African Journal on Conflict Resolution* 18, no. 1 (August 2018).

¹¹⁵ Xingondo is local term used in Mozambique to describe a person with warrior skills. But it is pejoratively used to call people originally from northern and central Mozambique.

Frelimo party is using Moatize as a colony. Because the exploitation they are doing is like a colony. For us, the colonisation here is not over yet. We are not free. We are still in the colony.”

“Why do you say that?”

“Because of bad governance. The people who are ruling the country have no capabilities to lead. That is why all this is happening. In the Mozambique liberation struggle against Portuguese colonialism, there was no discrimination against people because of their origin — ‘This is *Makonde*, or that is *Nhungue*.’ There was no such thing. All people united and created a movement to fight against the colonisers and liberate the country. But after liberating the country, these very same people turned against their fellow citizens and colonised them. The way Frelimo is ruling us, we even feel that the Portuguese were better than these new colonisers because, at least, they were foreigners, different from these new ones who are our fellow countrymen. The way we mistreat each other doesn’t even seem like we are all Mozambicans.”

“When you say governance, are you referring to the local or national government?”

“It is mainly the national government because the local government only receives orders from the national government. Do you think that the provincial governors or the district administrator have the power to stop a project that the national government approved? Do you think that is possible?! These people only receive orders (...). So, the problem is with the National government.”



Figure 7: Cracks in the house due to mine blasting. September 2018.

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The environmental damage caused by the extractive industry is part of what the literature on extractivism calls the “paradox of plenty” or “resource curse.” While on the one side, it is seen as an element that can promote development by creating more jobs and infrastructure and generating national revenue, on the other side, it can also cause several adverse effects, such as land privatisation, displacement of the local communities, and environmental damage.¹¹⁶ Pijpers and Eriksen argue that the double-sided effects character of the extractive industry “do not necessarily

¹¹⁶ Acosta, “Extractivism and Neoextractivism”; Gudynas, “Extractivisms: Tendencies and consequences”; Stiglitz, *Making globalization work*.

pose a question of either/or.” Thus, extractivism’s positive and negative effects can be “accommodated” through continuous negotiations between the actors involved in the extractive process — what the authors call *mining encounters*.

How do the various actors negotiate the effects of the extractive industry in a context marked by conflicting interests?¹¹⁷ This is the question I will also try to answer here, focusing on the negotiations between the mining companies, government authorities, local communities, and civil society organisations on the environmental effects of coal extraction in Moatize.

Ever since the ecological effects of the coal mining activities started to emerge in Moatize, the local communities presented their concern to the government authorities and the mining companies, and several meetings have been held to discuss possible solutions for the matter. Despite the promises of the mining companies to take measures to reduce the effects of their mining activities, nothing seemed to change; on the contrary, things got worse as the years went by. As José Sainete, a community leader, stressed:

The district government, the municipal government, and even the provincial government know well this issue (...). We told them about it, but the answer is always, ‘We are making all efforts to solve the air pollution issue. But ever since they said that, instead of seeing an improvement, the issue of air pollution is getting worse, and they are expanding their activities to the other side (...). They don’t stop.’¹¹⁸

Resettlement was one of the demands of the local population, mainly those close to the mining site who had their lives conditioned by the environmental effects of the coal mining activities. Many of our interviewees argued that the Vale mining company should resettle the population around the mining site so they can continue doing their activities. As Marcelino Zeferino, a former potter, told us:

We are very angry to see the mining company doing their activities here. We are dying from coal dust. Is the government not seeing this? They [the local government authorities] came here, and the population said, ‘Please ask the mining company to resettle us so that they can

¹¹⁷ Pijpers and Eriksen, “Introduction: Negotiating the Multiple Edges of Mining Encounters,” 2.

¹¹⁸ Interview with José Sainete, Moatize, September 24, 2018.

do their work freely.’ But the government doesn’t want to hear. The company should respect people’s lives, and the government should also consider this issue. We might not die today, but we are dying slowly.¹¹⁹

Some local civil society organisations that worked closely with the affected communities also defended the resettlement of the population. Some even argued for resettling the entire population of Moatize. For instance, Pinho Pires, coordinator of a local civil society organisation called RAMBOG (Moatize Associations Network for Good Governance), argued that the mining company should resettle the entire population to avoid future disasters:

The Vale company should resettle all the families living in Moatize. Moatize is being affected not only by pollution but also by mining blasts. The blasts can cause earthquake. I don’t know if they have seismography or not. Although the ground is steady, it can open at any time because of the shaking caused by the mining blast. People will suffer a lot like those countries suffering from earthquakes.¹²⁰

The local government authorities acknowledged the population’s woes due to the environmental effects of mining activities. For instance, an official of the municipal government argued that the mistake was made by those who initially planned the mining activities in Moatize. Like the other interviewees mentioned above, he also suggested a general resettlement of the population, but the resettlements should observe proper compensation to the resettled communities:

I argued many times in our meetings that the mistake was made by those who planned the mining at the time. If they had planned it earlier, this wouldn’t have been a habitable area – it would be a mining zone. The population may agree to be resettled, but they demand the same conditions they have here. For instance, if my yard is a specific size and has plants and houses, there is everything in there; the question is, ‘Will they give me all these things in the

¹¹⁹ Interview with Marcelino Zeferino, Moatize, September 26, 2018.

¹²⁰ Interview with Pinho Pedro Pires, coordinator of Moatize Associations Network for Good Governance (RAMBOG), Moatize, September 27, 2018.

new resettlement?’ This is the main problem that happens in the resettlement process. Today, we have problems with the populations removed from Chipanga (...) – because we did not give them more. We know this resettlement is for our people, so we must give them more. We shouldn’t give them equal or under. We must demand dignified resettlement from the mining companies for our people. That is the only way to avoid problems.¹²¹

Another local government authority blamed the central government for the environmental issues because the mining concessions were negotiated by the central government. According to him, this limited the local government's ability to compel the mining companies to observe the environmental issues. As local government, they try to negotiate minor matters with the mining companies to reduce air pollution in the local communities. For instance, the local government authorities negotiated with the Jindal mining company to water the coal transported by trucks to its coal terminal in Moatize to prevent the coal dust from spreading into communities. However, despite acknowledging the ecological damage caused by the mining industry, the local government authorities also sensitise the population in the communities to see the environmental effects of coal extraction as part of the country’s development:

We also sensitise the population regarding air pollution. Although we know it harms people’s health, we sensitise them to understand that a developing country goes through many complex issues. But to respond to the country’s economy, it is necessary to do them. But anyway, their complaints are relevant because it’s not an issue that affects only those close to the mining site; it is the entire city. The whole population is affected by pollution.¹²²

The idea of convincing the local population to see the environmental damage as a necessary cost to pay for the country’s development was also argued by another local government authority we interviewed, “We had serious issues with the population in the beginning. But with time, as we were having meetings in the communities, sensitising them about development. We explained to

¹²¹ Interview with Ribeiro Coelho, head of the urbanization department at the municipality, Moatize, April 27, 2018.

¹²² Interview with a local government official, Moatize, April 27, 2018.

them that these issues were part of the development. Development has its negative side, like the air pollution we face now.”¹²³

It was interesting to see how this development narrative, of looking to the environmental effects of the mining extraction as a necessary cost to be paid for development, had been instilled within the whole local government’s structure, from the district government, municipal government down to the community leaders. When we were conducting this research, the campaign for the municipal elections held in October 2018 was underway. We attended rallies of the candidates of the two main parties, Frelimo and Renamo. It was interesting to see, for instance, that the Frelimo candidate, Carlos Portimão, who was running for his own succession, also used the same “developmental narrative” in his rally speeches to justify the air pollution and all the environmental damage caused by the mining activities.

Many progressive governments in Latin America see the environmental damage of natural resource extraction as “sacrifices for the greater benefit of the whole nation.”¹²⁴ In some cases, the government’s authorities even created a series of institutional arrangements to attribute environmental permits to the mining corporations to attract more international investment, ignoring all socio-environmental costs. Such was the case in Argentina, Brazil, and Uruguay. In Argentina, for instance, the government vetoed a law that would protect the Andean Glaciers in order to facilitate mining extraction in the region, such as the gold extraction in Pascua Lama and other mining activities.¹²⁵ So, these governments do everything at their disposal to secure the investments. Despite the local population’s complaints about the ecological disruption caused by the mining corporations, they continue developing their activities.¹²⁶ The two major disasters in Brazil between 2015 and 2019 are some examples we can refer to. In 2015, one of the mining dams owned by the Saramago Mining Company, an affiliate of two big mining corporations, the Brazilian Vale and the BHP, collapsed, affecting the states of Minas Gerais and Espírito Santo. More than 48 “cubic meters of mineral waste” drained into the Rio Doce, a very important river in the region, affecting the entire ecosystem and conditioning the livelihood of thousands of people in the local communities who depended on the river for survival. The disaster killed 19 people and destroyed many houses and villages. The second disaster happened in 2019, in Bumandinho, when

¹²³ Interview with Lucas Alfaca, head of the social affairs department at the municipality, Moatize, April 27, 2018.

¹²⁴ Gudynas, “The New Extractivism of the 21st Century,” 7.

¹²⁵ Gudynas, “The New Extractivism of the 21st Century,” 7.

¹²⁶ Terminski, “Mining-Induced Displacement”; Calvão, Archer and Benya, “Global Lives of Extraction”

a tailing dam owned by Vale mining company containing minerals such as iron, titanium, aluminium and uranium failed and inundated the Ferro-Carvaio brook, reaching the Paraopeba River. The disaster contaminated the many rivers in the region and killed almost 300 people. Despite the local communities' contestation toward the projects, the mining corporations continued to operate in the region and were actively engaged in social programs in the education and health sectors.¹²⁷

The examples above show how the power imbalance between the various authors in contexts of extractivism may influence the negotiations' dynamic of environmental effects. The local communities are usually the weak part of that "complex" and "conflictive" negotiation dominated by multinational corporations.¹²⁸ Such was the situation experienced in Moatize. As I have discussed in the previous chapters, the power imbalance between the mining companies, the government authorities and the local communities conditioned the negotiation of the mining effects in Moatize. Despite all the community's complaints about the ecological disruption caused by the coal mining industry, the government authorities could not stand for the local communities and compel the mining companies to observe the environmental factors.

The government authorities' inertia in solving the violence caused by coal mining extraction raised a lot of political disaffection among the local population. On the one hand, the population manifested their distrust and disbelief toward government authorities and institutions, believing they could not tackle the mining issues. Thus, the population started seeking alternative means, such as protests, to pressure the mining companies and the local government to address their demands. For instance, on October 4, 2018, due to air pollution and ground shaking caused by mining activities, the population invaded the Vale mining compound with stones, demanding the company turn off the machinery. Thus, the mining activities were interrupted, and a meeting was held the next day with the local communities, the mining company and the local government authorities. However, no solution was reached in this meeting.¹²⁹ The interruption of the mining

¹²⁷ Andréa Zhouri, Raquel Oliveira, Marcos Zucarelli and Max Vasconcelos, "The Rio Doce Mining Disaster in Brazil: between policies of reparation and the politics of affectations," *Vibrant: Virtual Brazilian Anthropology* 14, no. 2 (2017); Bruno Milanez, Saleen. H. Ali and Jose de Oliveira, "Mapping industrial disaster recovery: Lessons from mining dam failures in Brazil," *The Extractive Industries and Society* 8, no. 2 (March 2021); Calvão, Archer and Benya, "Global Lives of Extraction"

¹²⁸ Acosta, "Extractivism and Neoextractivism"

¹²⁹ See: Jornal Malacha, "Última hora: Comunidade e Vale acordam em paralisar a mina Moatize II," Facebook, 4th October 2018,

activities only lasted for a few days. The issue of air pollution was raised in the parliament. On 21st November 2018, the Minister of Land, Environment and Rural Development, Celso Correia, was asked about the pollution issue in Moatize. The minister answered that the government had conducted studies to assess the air pollution, ground vibration, and noise pollution in the region, and the results showed high levels of pollution; thus, the government had decided to interrupt the Vale mining activities.¹³⁰ This information did not match what was happening in the field because the Vale mining company had already resumed its coal extraction activities.

Similar protests happened in Liberdade neighbourhood. Due to the coal dust pollution caused by the Jindal mining trucks that transport coal from the Chirodzi mine to its coal terminal in Moatize. The population blocked the trucks' access to the coal terminal two times, as one of the community leaders told us:

The population said, 'We are always complaining, and nobody hears us. So we will block the road (...).' And they blocked, indeed. They were determined (...) You know, when all the population come together, saying the same thing; it means there is a mobilisation. They didn't even tell me. When I heard about it, I went there, and it was true. So the director of the mining company and I had to sensitise the people. The representative of the mining company said, 'We will put a carpet on the road to prevent the spread of coal dust.' The population agreed to open the road. But when the population realised that none of that was happening, they decided to block the road again. Then, we had a meeting with the population. We called the mayor and the other community leaders of the neighbourhood; they were all there to talk with the community. The mining company said they would water the road to prevent the coal dust. They also said they would help some people with jobs in the company.

<https://www.facebook.com/jornalmalacha/posts/pfbid02yQP2jjuP8yZ7dgDx3XmTURt1Ci5ZaTK5P2jRkEx8SdJtMz4jKy6UxBawnRKeQvEGI>; Miramar TV, "Poluição Ambiental: Moradores do Bairro Sete em Moatize paralisaram as actividades da empresa Vale por conta da poeira e dos tremores de terra causados por explosões na área concessionária a mineradora," YouTube video, 5th October 2018, 1:53, <https://www.youtube.com/watch?v=kWhE5SoFo2c>; Jornal Malacha, "Dossier paralização da mina Moatize II: Vale convoca encontro, mas a comunidade continua na mesma Tecla," Facebook, 5th October 2018, <https://www.facebook.com/jornalmalacha/posts/pfbid02sJkwDW595NR4xyh1AWnE1ZuqJSG7L8XS9SVbS4dnZRf5h5uVrMWaY8AqRzpXnWHI>

¹³⁰ Portal do Governo de Mocambique, "Moçambique/Tete: Governo reconhece poluição ambiental proveniente das minas de Moatize," Accessed 22 November 2018, <https://www.portaldogoverno.gov.mz/por/Imprensa/Noticias/Mocambique-Tete-Governo-reconhece-poluicao-ambiental-proveniente-das-minas-de-Moatize>

So, I took the names of some people and gave them to the mining company, and these people are still working there (...). They also promised to open a water supply system and did so.¹³¹

Resistance of the local communities against mining extraction due to environmental damage has been increasingly recurrent in countries rich in mineral resources. The violation of the local communities' rights by the mining corporations and the lack of credible institutions to address the demands of the communities are some of the factors that usually lead to protests. Le Billon and Middeldorp argue, "As distrust in institutional channels grows, more people engage in protest to get their voices heard and interests recognised."¹³²

The Jindal Mining Company's response to the protests by providing jobs and a water supply system to the local communities can be seen as a strategy to maintain the legitimacy of the mining activities in the region and among the local communities and prevent resistance from the local communities. In collaboration with the local government, the Vale Mining Company also carried out a set of social interventions, such as building water supply systems in some neighbourhoods to respond to the water crisis that affects the city. In other communities, such as Bagamoyo, water tanks were installed, and the mining company supplied water on a daily basis, as I show in the following chapter, where I discuss the water crisis in Moatize.

Many progressive governments in South America have used the same strategy. They use the revenue from natural resource extraction to finance social plans, focusing primarily on the poorest sectors of society. For example, the Brazilian government introduced *Bolsa família*, a social program to assist low-income families financially. In 2002, the Chilean government, under the leadership of President Ricardo Lagos, also created a financial aid called *Chile solidario* as a social protection policy oriented to people experiencing poverty.¹³³

The political disaffection among the local population due to the mining issues was also evident in their predisposition to distance themselves from politics and the electoral processes. As the interview sketches in this chapter show, many of our interviewees promised to abstain from the municipal elections that would take place in October 2018. This highlights the arguments raised in the literature on political disaffection, which state that in contexts of political disaffection,

¹³¹ Interview with a community leader, Moatize, September 22, 2018.

¹³² Le Billon and Middeldorp, "Empowerment or Imposition," 80.

¹³³ Eduardo Gudynas, "The New Extractivism of the 21st Century," 7-8.

individuals not only seek alternative means to vent their frustration but are also less likely to participate in democratic processes.¹³⁴

So, how should the local environmental issues be addressed in an extractive-based economy? I would argue that there is no unique formula answer to this question because the extractive industry sector and its socio-environmental effects are very complex, and how they might be tackled may differ from place to place. Some scholars have presented alternatives to reflection on that question. Joseph Stiglitz, for instance, suggests establishing better incentives to prevent multinational companies from disrupting the environment. If the mining companies are fined and compelled to pay for the environmental destruction caused by their activities, they will be more careful.¹³⁵ Stiglitz's suggestion is, in my opinion, idealistic and ignores the different contexts and realities of the countries rich in natural resources. Taxation to prevent multinational corporations from damaging the environment might work in some countries, mainly those with solid institutional structures. However, in contexts of weak states and fragile institutions, as I have shown earlier in this chapter, the government authorities are sometimes sceptical about establishing rigid rules for multinationals because they fear losing the foreign investment made by multinational corporations. So, they avoid to follow that way.

Acosta and Gudynas propose the participation of citizens and civil society organisations in the oversight of the extractive projects to avoid environmental damage.¹³⁶ However, the reality is that in many countries rich with natural resources, civil society organisations are sometimes cooped by the government or mining corporations, which makes their role ineffective. So, civil society organisations must be independent and strong enough to compel the multinationals and the governments to respect the environmental factors of the places where the extractive mining takes place. This can counter-balance the power disparities that characterise the relationship and negotiations between the mining companies, the local government authorities and local communities.

Nevertheless, I would add one more element to Acosta and Gudyna's proposals: the political will of the government authorities directly involved in the extractive business. Unless the

¹³⁴ Juan D. Cárdenas Ruiz, "Paradoxes and transformations of Political Participation in Bogota: Political Disaffection and Participation in the 2019 Elections," *Comunicación y Sociedad*, e8324 (June 2022): 5-6; Julia Schulte-Cloos and Arndt Leininger, "Electoral Participation, Political disaffection, and the raise of the populist radical right," *Party Politics* 28, no. 3 (2021).

¹³⁵ Stiglitz, *Making globalization work*, 158.

¹³⁶ Acosta, "Extractivism and Neoextractivism," 82; Gudynas, "Extractivisms: Tendencies and consequences," 75.

government authorities who are part of the extractive industry's decision-making process are willing to commit to socio-environmental protection and take practical actions in that direction, the local communities will continue suffering from the environmental effects of the mining extraction.

Chapter 4

We no longer have access to the pond

Mining and water in Moatize

“We went to talk with the government when the company closed all the access to the mining area, where the population used to get water from the ponds and wells,” said José Sainete, a community leader from Nhantchere neighbourhood. “We went to complain, ‘Now that the company is closing the accesses, what will we drink? And how will we survive? Although that water is dirty, some people also drink it besides using it for bathing, washing clothes, and cleanings.’ Then they said, ‘Okay, we will solve it.’ When the company was closing the fence, they called me to sensitise the community not to protest. While there, I told the company, ‘I am also part of this issue because I also use the same water. So, you should find a way of constructing a borehole here in the community.’ But at the time, I didn’t know the mayor had already talked to the company about the issue. The next day, they told us they would put a water tank here.”

“Is it the Vale company who brought the water tank here?” I asked.

“Yes, it’s Vale.”

“How many litres does it have?”

“Ten thousand litres. The water truck comes to fill it.”

“How many days does the water last in the tank?”

“Only a day. As you can see, there are many people. They are even few now.”

“Does it get crowded more than this?”

“Yes. It gets more crowded. Just wait until the truck arrives; you will see (...). Others are still at home. Once they see the car, they will come running. You will see when the car arrives here; it becomes like a big gathering.”

“At what time does the truck come?”

“Usually, it comes around 9:00 am or 10:00 am. But today, they said they would come at 1:00 pm. They called me and said they would be here in 40 minutes because they were eating.”

“Where do they take the water they bring here?”

“The company has eleven water collection systems in the Rovúbwé River that push water through the pipelines to the company compound. The pipelines pass through the mountains to the

company's compound. And there is a big water tank down the mountain from where they take water for us."

"Do they fill the tank up just in one trip?"

"Yes, they fill up and still have water in the water truck. The truck carries twenty thousand litres of water, and the tank here is only ten thousand litres. So, when the truck comes, it fills up the tank, and we ask them to wait until we distribute the remaining water to the people, and then they leave. Then we distribute the water from our water tank to those who didn't get water."

"Do you think the water tank system will solve the problem?"

"It is just to minimise the problem. I can't say that it will solve the problem, no. You know, water is water, and we use more water during this hot season. To manage the water, we tell the community, 'Each household must bring only three 20l water bottles.' If every household gets three bottles of water and we still have water, then we have a second round until the water in the tank is over."

"How do you control that?" I asked.

"I am the one in charge of controlling it. I control the queue from where I am sitting, and they also control themselves. When the water truck arrives, I must ensure that every household gets the same amount. If someone gets four bottles of water, it is a problem."

While we were still talking, I heard the sound of a car. It was the water tank truck bringing the water to the community.

"Sorry, but I must go and guide those people," he said.

"Okay, it's fine," I replied.

He walked toward the truck, and I followed him to see it closer.

There it was, a big white water tank truck carrying a twenty thousand litre tank. As the driver manoeuvred the truck, the place suddenly got crowded. Women and children were coming over carrying water bottles, basins, and buckets with them.

One of the uniformed men climbed to the top of the black tank placed in the community, and the other man pulled the hose from the truck tank and gave it to the man on top of the black tank. Then, they started draining the water from the truck tank to the black tank. Once the black water tank was filled, José, the community leader, got in charge, grabbed the truck tank hose and started distributing water to the people in the queue. Everyone was trying to get to the front. No one respected the queue anymore, and things got messy because everyone was fighting to get water.

When the water in the truck tank was over, the truck left. The leader continued distributing the water to his people. But now it was the water from the local water tank. Those who had no chance to have water in the first round could have it now. Some were getting it for the first time and others for the second, third or even fourth time as they came and went back home.

After approximately one hour, the community leader closed the water tank and told the people to go home. He said he had to keep some water so those who were not there during the water distribution could also have the chance to get some water afterwards. Some easily understood and left back home. But others remained there, claiming that they didn't have enough water.



Figure 8: Women fighting for water in Nhantchere. September 2018.



Figure 9: Women fighting for water in Nhantchere. September 2018.

* * *

Like many other cities in Mozambique, Moatize is characterised by a crisis in water supply. In all the communities in which we conducted our research, water scarcity was one of the concerns presented by our interviewees. Although most of the neighbourhoods had water network pipelines and taps in the houses, the access to water was conditioned, mainly during the dry season. A young man from *25 de Setembro* neighbourhood, where part of the population from Chipanga was resettled, argued that water scarcity in Moatize was an old issue that the former and the current mayors failed to address:

The water crisis is an old issue. I think you have seen the same issue in the other neighbourhoods. The former mayor, Mr Colarinho, promised to solve this issue. As you can see, we opened these holes to get some water because the water doesn't get enough pressure

to come out from the taps. So we must dig in to get water from the pipe. I think the situation is better in the winter, but in the summer, it gets worse. When the current mayor, Mr Portimão, came to power, he also promised to solve the water issue. But nothing has changed, and his electoral term is almost at the end. Automatically, people have lost faith in him (...).¹³⁷

The water scarcity did not affect all communities the same way – some were more affected than others. This was partly due to the disparities in the water supplied by the FIPAG (the Mozambican government’s institution created to deal with water supply services in the cities) in collaboration with the municipal government.¹³⁸ For instance, the water crisis affected Liberdade, Bagamoyo, Nhantchere, and 1 de Maio more than the other neighbourhoods. The number of boreholes in these communities was limited, and although some houses had water taps, there was no water. However, despite the water scarcity that generally characterised Moatize, the mining activities also affected the water access of the communities close to the mining sites, such as Bagamoyo and Nhantchere.

Within the context of the ecological impacts of the extractive industry discussed in the previous chapter and focusing on the water issue, this chapter argues that the Vale coal mining activities have worsened the water crisis experienced by the local communities near the mining site in Moatize. It shows how the construction of the fence by the mining company affected the community's daily life, as they no longer had access to the ponds and wells where they fetched water for their everyday use. Resorting to the ‘waterscape’ approach, I also explore the symbolic meanings, identities, and power relations embedded in the water and how the various actors have mobilised and negotiated their interests and objectives around water management.

Before the Vale company initiated the coal extraction in the Chipanga mine, the local communities used the area for farming, animal grazing, getting water from the ponds and wells, and collecting wild fruits and firewood. Not too long after starting the mining activities, the Vale company decided to build a fence around the mining company to prevent the local communities

¹³⁷ Interview with Pedro Sebastião Vilanculos, Moatize, September 29, 2018.

¹³⁸ See: Resolução 42/2016. *Boletim da República*. 30th Dezembro, 2016; Diploma Ministerial 188/2013. *Boletim da República*, 8th Novembro, 2013.

from entering the mining site, allegedly for safety reasons. However, with the fence, these communities lost their access to the land and all the benefits they depended on for their livelihood:

Before the arrival of the mining companies, people from this neighbourhood used to fetch water in the Vale mining. There were ponds, and people used to dig small wells around them to get water for daily use. But now, because of the fence built by the mining company, we no longer have access to the ponds. Now, we have to go to other neighbourhoods to get water. Sometimes, we have to get up at 3 am to get water because even there, the water supply is limited to certain hours.¹³⁹

Even after the construction of the fence, some people found alternative ways to access the mining site to get water and firewood. Such was the case with the population of Bagamoyo and Nhantchere¹⁴⁰, who accessed the mining site through drain pipes that the mining company had placed in the fence. Thus, when the mining company learned that the population continued to access the mining site, they decided to block the drain pipes with iron rods to hinder them from entering the mining site:

Before the Vale company started exploring this area, we used to go there and get water from a small pond. It was not only water; we also used the site for farming, getting firewood, and pasturing our goats. Then they came and put up the fence (...). But because they placed some drain pipes to drain rainwater, the population used to pass through those drainage pipes to fetch water and other things. But a few days ago, I saw they also closed the drainage pipes.

¹³⁹ Intervenient in a Focus Group discussion with youth, Moatize, September 21st, 2018.

¹⁴⁰ Nhantchere was officially known as a subunit of the Bagamoyo neighbourhood. But I treat it as an independent Neighborhood because, at the time we conducted this research, a neighbourhood restructuring was underway at the municipal government. The process included the creation of three new neighbourhoods: Nhanntchere, Chipanga, and Malabwe. Although they were not yet formalised, the municipal government authorities already had them in their planning activities.



Figure 10: The drain pipes used by the local population in Nhatchere to access the mining site to get water, firewood, etc. September 2018.

The construction of the mining fence conditioned the livelihood of the local communities, who were already experiencing a lot of hardship with water access and environmental damage caused by the coal mining activities. Now, they were suffering not only from air pollution, noise pollution and ground shaking, as I have shown in the previous chapter, but were also deprived of land and water access they had before the mining company's arrival. They now had to seek water in the neighbouring communities, walking long distances. Women had to wake up early in the morning, around 4 or 5 am, to go and fetch water in the neighbouring communities.¹⁴¹ Usually, they had to face long queues to get water and pay between 2 and 5 *meticaïs* for each 20l water bottle. This shows the socioeconomic implications of the mining industry on the local communities. With the loss of access to land and water, this population transitioned, using

¹⁴¹ As in many other communities, although men might help, fetching water is traditionally performed by women.

Terminski's words, from a “land-based to a cash-based economy,” which is one of the biggest challenges the local communities face in the extractive industry context.¹⁴² For instance, before the mining companies’ arrival, although some people could buy potable water for drinking, they didn’t need to do that for house cleaning, bathing, and livestock drinking. However, after the mining company's arrival and the access restriction to the ponds and streams, they now had to buy water for all their daily activities. Their lives had been entirely transformed by extractive capitalism. This is what Nixon calls “displaced without moving.”¹⁴³ Even though they were not removed from their original place, the local communities around the extractive industry or development projects usually find themselves in a position where they no longer have access to the land and all the resources they depend on to survive. They are “stranded in a place stripped of the very characteristics that made it inhabitable – they are goners with nowhere to go.”¹⁴⁴ As Almeida, a young man from Bagamoyo, stressed, “This is not a place to live. We are still here because we don’t have money to leave and build a new house in another neighbourhood.”¹⁴⁵

The impact of mining on the local community’s water bodies and rivers is common in the extractive industry context because it implies extensive land area usurpation and the destruction of the ecosystem. Besides the contamination of water sources with mining wastes, often full of heavy metal pollutants that affect water quality, mining activities also affect the water quantity available for the community’s use.¹⁴⁶ For instance, to expand its coal mining extraction in the Serrejón mining area in the Guajira peninsula in Colombia, the Cerejón mining company, owned by two multinationals, BHP Billiton and the Glencore, shifted the course of the Arroyo Bruno stream, that feeds the Ranchería River, an important river for the villages in the region. The diversion of the river conditioned the livelihood of the Wayúu indigenous communities, who depended on the river for household water, fishing and irrigation. Because of the extensive quantity of water demanded in the mining activities, around seventeen rivers and streams had been

¹⁴² Terminski, “Mining-Induced Displacement”

¹⁴³ Nixon, *Slow Violence*, 19.

¹⁴⁴ Nixon, *Slow Violence*, 19.

¹⁴⁵ Interview with António Almeida, Moatize, 24 September 2018.

¹⁴⁶ Munnik, Hochman, Hlabane and Law, *The Social and Environmental Consequences of Coal Mining*; Mishra and Das, “Coal Mining and Local Environment”; Jessica Budds and Leonith Hinojosa, “Restructuring and Rescaling Water Governance in Mining Contexts: The Co-Production of waterscapes in Peru,” *Water Alternatives* 5, no.1 (February 2012).

destroyed, affecting the entire hydrology of the region.¹⁴⁷ The effect of the mining activities on water sources was also one of the biggest concerns among the villagers around the Talcher Coalfield mine in India. Mishra and Das reported the destruction of ponds used by the local communities to bathe due to the large quantities of water used in the mining activities. The local communities claimed that after the mining activities had started in the region, the water table reduced considerably, affecting the water availability in the wells, ponds, tube wells and streams, mainly during the dry season. This negatively impacted the lives of the local communities.¹⁴⁸

* * *

“Didn’t you pass through a football field on that side?” asked Ribeiro.

“Yes, we did” I replied.

“There is a borehole close to that field where we fetch water. But we have to pay 5 *meticais* for each 20l water bottle. If you had come here earlier, you would have seen my sister-in-law carrying water battles on a wheelbarrow from Bairro 5 [the name of a neighbouring community]. Sometimes, we have to go to *Transcarga* to get water. There are two boreholes there, and the water comes out every day. It is where our women fetch water. But they usually have to follow big queues (...). The government hired a Chinese company to put water pipes throughout Moatize City in 2013. As you can see, that hole over there has a water pipe. The Chinese company installed water pipes, and the plan was to build a water collection system from the Zambezi River to supply the entire city of Moatize. Then, the local government said there was no budget to continue with the project, and they had to wait for new funding to continue. But nothing happened until today. Maybe the local government authorities were doing that to get votes. Because there were municipal elections in that year [2013], and they needed to campaign for the elections. So, they gave up the project once they won the election.”

“Why do you say that?” I asked.

“What can I say, my brother? They know how serious the water issue is in Moatize. So, why did they give up? I don’t believe they didn’t have money to continue with the project. With all

¹⁴⁷ Gilbert, Gilbertson and Jakobsen, “Incommensurability,” 442; Emma Banks, “We are Bruno: Citizens caught between an absentee State and a State-like corporation during water conflicts in Guajira, Colombia,” *Urban Anthropology and Studies of Cultural System and World Economic Development* 46, no. 1/2 (Spring summer 2017).

¹⁴⁸ Mishra and Das, “Coal Mining and Local Environment,” 6-9.

these mining companies exploring coal here – that is not true. That project could have helped us a lot, and we wouldn't be suffering as we are now. I think you have heard people's complaints in the communities where you have been. It has been a long time with this problem.”

“But what can we do? We are simple people. If the government is treating us like this, what can we do? We are living like animals in a stockyard. When animals are in a stockyard, they don't react. Some people say we face all these problems because we are from Renamo.”

“Who says that?” I asked.

“Nobody says that openly, but there are rumours that people from Bagamoyo are from Renamo. Maybe that is why they are doing that to us. For instance, the Vale company installed water pipes which transport water from the Rovúbué River to the mining compound; why don't they also supply the same water to the communities? I don't understand. It proves they are only focused on exploring coal from Moatize and nothing more. But we also think the fault is from the government because they allow all this to happen.”

“Why do you think it is the government's fault?”

“The government should have told the Vale company, ‘If you want to explore coal here, you must supply water to the local population.’ They could do that because they have money. How many billions are they earning from coal extraction? Can't they at least provide water to the local population? (...). They only opened a few boreholes in some communities to deceive the population and keep them quiet. But we know it doesn't solve the real problem.”

“What about the water tanks placed in some communities?” I asked.

“Ah, my brother, do you think those water tanks will solve the problem? For how long are they going to do that? I don't know what they agreed with the local government, but that water is not enough for us to use daily. People have to fight to get water; every family can only get a few water bottles. Do you think an entire family can survive only with a few water bottles? Just imagine this weather with no water; how can we survive? But the coal mining companies are doing their job while people are suffering here.”

* * *

Apart from analysing the social implications of the mining fence for the local communities on water access, it is also important to explore the dynamics around the water issue. What are the

symbolic meanings, identities and power relations constructed around the water issue in Moatize? And how have the local government, the mining company, and the affected communities mobilised and negotiated their interests and objectives around water? These are the questions I will engage with in this section through the waterscape approach. According to Budds and Hinojosa, ‘waterscape’ is an essential approach that enables us to explore the “multiple processes and dynamics that mediate water over space and time, in a way that avoids the limitations of thinking about water in purely material terms (...). A waterscape is not only the context in which water is contained but a produced socio-natural entity in which social power is embedded and shaped by both water materials flow and its symbolic meanings.”¹⁴⁹

The construction of the mining fence raised a lot of contestation among the local communities. For instance, when the Vale mining company decided to close the drain pipes in Nhantchere, the only entrance the population used to access the ponds after the construction of the mining fence, the population confronted the mining company to prevent them from closing the entrance. The confrontation caused chaos, and a man was shot dead by the police. An interviewee, a member of the local potters' group, told the story in such terms:

Someone died in Nhantchere because of this issue. They closed all the entrances to the mining compound, but there was one entrance close to my house that was still open. Then, one day, the mining company came with their machinery to close the entrance. The community showed up and asked them why they were closing the entrances without informing the community. They said, ‘You can even ask your community leader and the government authorities; they know about it.’ Then, the mining company's private security came to back up the population, and the population reacted. The company’s private security couldn’t handle the situation, and they called the police. When the police came, we tried to explain to them that the mining company should first meet with the population in the community to discuss their decision and say what they will do to facilitate the population’s access to firewood and water (...). Then, there was an argument with the police, and things got out of control (...). The police started shooting into the sky to drive away the population,

¹⁴⁹ Budds and Hinojosa, “Restructuring and Rescaling Water Governance,” 120-124. See also: Ben Orlove and Steven Caton, “Water Sustainability: Anthropological Approaches and Prospects,” *The annual Review of Anthropology* 39, (June 2010); Chris H. Buscher, “Imaginary Waterscapes: The Case of the Dutch Water Sector,” *Water Alternatives* 12 no. 3 (2019).

and people started throwing stones. The police saw that the situation was not good, and that is when they shot a man. The person was standing next to me (...). The man ran away and crossed to the other side of the street (...). He ran a distance of about 10 meters and fell under a small tree. When other people realised that the man was shot, they all went to face the police, saying, 'Kill us all.' They smashed the police car's windows with stones. The police officers got into the vehicles and fled. The person died right there. Then we took the body to the community leader's house, Mr Júlio.¹⁵⁰

We then learned that the deceased wasn't a resident of the community; he was there visiting his relatives. The mining company transferred the remains to the Tsangano district, where he was originally from, and covered all the financial costs. Nevertheless, the mining company closed the entrance despite the community's contestations.

Despite acknowledging the negative implications of the mining fence for the local communities, the local government authorities argued that the mining company's decision was for the safety of the local communities because it would avoid accidents within the mining site:

The social impact was not good. But then people started to understand that the fence was a protection for the communities because we had accidents within the mining site. Children died because of their parental negligence; they used to get inside the mining site. So, we told the communities that it was important to protect the area because of the mining impact (...). The situation was solved because, in collaboration with the Vale mining company, we built a paved road the communities use to go and get firewood (...). Indeed, the distance is long now, but it is better to do that than to enter the mining site through the fence, which is dangerous. We already have examples of accidents in the mining site.¹⁵¹

The words above show how, despite acknowledging the socio-environmental effects of the mining activities on the local communities, the local government authorities always tried to minimise them. The government officials tried to convey a non-existent consensus regarding the construction of the mining fence. The new paved road built by the mining company was also

¹⁵⁰ B.K.'s intervention in the Focus Group discussion with potters, Moatize, 26 September 2018.

¹⁵¹ Interview with Lucas Alfaca, head of the social affairs department in the municipality, Moatize, April 27, 2018.

contested by the local population. With the new road, the population had to walk long distances for farming, grazing animals and collecting firewood. Regarding water access, it was difficult for this population to get to the ponds and the wells they used to fetch water, and most of these sites no longer existed because of the continuous expansion of mining activities.

In collaboration with FIPAG and the Vale mining company, the local government constructed some boreholes in the communities to respond to the water demand. The boreholes were part of an intervention that sought to minimise the water crisis not only in the communities close to the mining site, such as Bagamoyo, Nhantchere and 1 de Maio, but also in other communities where the crisis was exacerbated, such as Liberdade. Some of these boreholes were funded by the World Bank through the Water Service and Institutional Support (WASIS) project. This project sought to improve the water supply service in some northern, central, and southern Mozambique cities, including Tete and Moatize.¹⁵² Despite the construction of boreholes in Bagamoyo and Nhantchere, the local government authorities acknowledged the insufficiency of boreholes: “We constructed two boreholes, and FIPAG also constructed three boreholes. But it is not enough because other critical areas exist in Bagamoyo and Nhantchere neighbourhoods.”¹⁵³

The water from the new boreholes in Bagamoyo and Nhantchere was salty and inappropriate for human consumption. Although it could be used for some activities, such as washing clothes and dishes, the water crisis persisted in these communities as people continued seeking potable water in the neighbouring communities. Thus, due to the water quality of the boreholes, the local government authorities and the mining company agreed to close the boreholes and place water tanks in these communities. As the interview sketch at the beginning of this chapter shows, the mining company put 10 thousand litre water tanks in some neighbourhoods such as Bagamoyo and Nhantchere, and they used to fill up the tanks daily through water trucks. The community leaders were responsible for distributing the water among the population, and the distribution had to be made rationally because the water tank was filled only once a day. Thus, each household had the right to only three water bottles, which was not enough for all the household needs. As a woman in Nhantchere said, “They only allow us to take three 20l water bottles per household. How can I

¹⁵² The first intake of the WASIS project was between 2007 and 2015, and then it was extended for a second phase, initiated in the 2015. See: World Bank, “Water Services and Institutional Support Project II (WASIS II): Resettlement Policy Framework for WASIS II and Updated to include Additional Financing for Nacala City,” WORLD BANK, 2019. https://ewsddata.rightsindevelopment.org/files/documents/63/WB-P165463_m2lxQKm.pdf

¹⁵³ Interview with Lucas Alfaca, head of the social affairs department at the municipality, Moatize, April 27, 2018.

use three bottles of water to do the cleanings, cook and take a bath?”¹⁵⁴ The distribution process was always disruptive, as most of the time, the ladies fought each other to ensure they got some water for their households, and the community leaders could hardly control the process.

The water supplied by the mining company was not only insufficient but also unsustainable. This means that these communities would have water only if the mining company continued supplying it – they became dependent on the mining company. Thus, many questions emerged: how long could the mining company continue supplying water to these communities? And how would these communities survive in the post-extractivist context when the mining companies have left? These questions call us to seriously reflect on the disruptiveness of the environmental damage caused by extractivism on the local communities.

This shows that no matter what solution is implemented for the mining-affected communities, they will never compensate for the environmental damage caused by the extractive industry. Although the decision to place the water tanks emerged as a response to the communities’ complaints about losing access to the ponds due to mining activities, it would never replace the water they got from the ponds and wells. This is what Gilbert *et al.* call “incommensurable compensation.” The costs of ecological damage caused by the large-extractive industry cannot be measured, and thus, they are incomparable with any other form or means of payment.¹⁵⁵ The incommensurability of the compensation from the mining company to the local communities was both material and ontological. The material incommensurability, as I mentioned above, was related to the fact that the water supplied by the mining company was limited and unsustainable. In contrast, the water from the ponds and wells was natural, and the local communities did not depend on any other entity to access it. Most of the time, environmental decisions in the extractive industry context ignore factors related to ecosystem sustainability and integrity, jeopardising the lives of current and future generations.¹⁵⁶ The ontological difference is related to the water's symbolic meaning for the local communities. For the local communities, it was not only a matter of water in its material terms – it was beyond that. The ponds and the wells where the local communities fetched water before the mining company's arrival were part of their cultural and personal identity. It was around those spaces where social relations were produced and reproduced for years, and all

¹⁵⁴ Interview with a woman, Moatize, April 24, 2018.

¹⁵⁵ Gilbert, Gilbertson and Jakobsen, “Incommensurability,” 442-443.

¹⁵⁶ See: Trainor, “Realms of Value,” 4-5.

this was destroyed for the sake of a ‘development’ project which barely benefited the local communities.

Gilbert *et al.*, for instance, refer to the cultural and spiritual attachment of Wayúu communities to the rivers disrupted by the mining companies when they diverted the Arroyo Brunos stream in La Guajira in Colombia. As Banks argues, water was “integral to the spiritual life of the Wayúu, symbolising the human connection to the motherland.” For instance, they believed that if a person in the community had a bad dream, bathing in the river would protect the dreamer and his/her family from evil.¹⁵⁷

The water issue in Moatize was also mobilised and instrumentalised by the mining company and the local government authorities. Placing the water tanks in the local communities was also a strategic decision for the Vale mining company – it would avoid complaints and protests among the local communities and legitimise the extractive activities. One of the challenges that the mining corporations and the local governments currently face is the emergence of recurrent contestation and protest among the local communities due to socio-environmental damage caused by the extractive industry. Thus, as mentioned in the previous chapter, multinationals usually use compensation measures to appease the communities’ contestations and legitimise the extractive industry. As Gilbert *et al.* stress, the compensation “acts as a silencing mechanism masking the wider, more structural socioenvironmental impacts.”¹⁵⁸

A similar case happened in many villages around the Cerrejón coal mining area in Colombia. The local communities in these villages depended on the water supplied by the Cerrejón mining company by water trucks. For instance, in Barrancas municipality, water was supplied by the mining company only twice a week, and the local population had to save water in tanks and cisterns to guarantee they had water during the dry days. The same happened with the communities in the Hatonuevo and Albania municipalities, where the Cerrejón mining company, through its wing organisation, “Cerrejón’s Water Foundation”, supplied water to the communities using water trucks. The mining social intervention in these communities, as Emma Banks argues, was more efficient than the state, and the mining company used such projects to legitimise its presence in the region, presenting itself as “a benevolent actor that contributes to the local development.” This kind of social intervention also benefited the corrupt and inefficient municipal government

¹⁵⁷ Gilbert, Gilbertson and Jakobsen, “Incommensurability,” 442-443; Banks, “We are Bruno,” 62.

¹⁵⁸ Gilbert, Gilbertson and Jakobsen, “Incommensurability,” 435.

authorities who managed to be reelected even without addressing the water crisis in the communities.¹⁵⁹

Most of the time, in countries rich in natural resources characterised by weak and corrupt states, the government authorities rely on the mining corporations' social intervention and the mining revenue to mobilise the citizens' trust and maintain their legitimacy. Government officials usually engage in personal bargaining with mining corporations for personal and political gains. Thus, most of the government's social interventions, even those funded by the mining corporations, are politicised.¹⁶⁰

In Moatize, the government authorities also mobilised and politicised the water issue for political gains. It is important to consider the timing of the water tank placements in the communities. On 10 October 2018, the same year the water tanks were placed in the communities, the country scheduled the fourth municipal elections. In a context where the local government authorities were seeking reelection in the municipal government and knowing the level of people's dissatisfaction and distrust toward the local government authorities due to the land disposition and all the environmental disruption caused by the mining activities, the decision to supply water to the communities close to the mining compound was a significant political move to regain the citizens' trust and get their vote. This meant that the local government authorities would benefit from the mining company's water supply without having an additional financial cost.

Most of our interviewees in Bagamoyo and Nhantchere, despite acknowledging the importance of the water supplied by the mining company, were sceptical of the decision and connected it to the election period:

We are entering the campaign period to elect the mayor. So, there is a tendency to have some water (...). They are not solving the issue because it is a momentary solution, and we think things shouldn't be like that. They shouldn't do things close to the elections when they want to ask for a vote. That is very dangerous because they find people already frustrated. People say, 'They now want us because they want votes'. So, all their promises end up losing their value. Even if they come with a well-designed plan, people say, 'No, you are lying.'¹⁶¹

¹⁵⁹ Banks, "We are Bruno," 72-73.

¹⁶⁰ Banks, "We are Bruno"; Budds and Hinojosa, "Restructuring and Rescaling Water Governance"

¹⁶¹ Interview with Pinho Pedro Pires, coordinator of Moatize Associations Network for Good Governance (RAMBOG), Moatize, September 27, 2018.

The water issue was also present in the discourses of the Frelimo candidate, Carlos Portimão. He often mentioned it during the 2018 municipal electoral campaign in the communities and promised to solve the water issue if re-elected. This discourse was completely discredited among the local population, who saw it as another political propaganda to ask for the citizen's vote. As a young man argued, “I heard yesterday the mayor, Carlos Portimão, saying, ‘We will solve the water issue in Moatize. We will construct a water treatment plant.’ I said, ‘This is another political propaganda.’”¹⁶²

People’s perception of the water tanks and the mayor’s promises as part of political propaganda was, in part, related to past experiences on the matter. Our interviewees argued that the former mayor, Carlos Colarinho Navaia, also promised to solve the water issue in Moatize. Still, until the end of his term in 2013, he didn’t solve it. It is important to mention that in 2013, the government contracted a Chinese company to install water network pipelines to improve the water supply service in Moatize. According to the local authorities, the project included the construction of a water system source in the Zambezi River, from where the water would be transported through a water transmission main to supply the city. However, after the construction of the system, the project allegedly did not proceed due to financial issues. As a local government official stressed, “Studies have already been carried out, including the costs. A water network pipeline has already been installed in the neighbourhoods. But the budget is too high to carry on with the project.”¹⁶³ The local population perceived the project as part of the political propaganda the local government authorities used for the 2013 election. Some of our interviewees believed that the local government authorities did not continue with the project because they got what they wanted – to win the elections.

As I have shown in the previous chapter, there was substantial political disappointment among the citizens toward the government due to the ecological disruption caused by the mining activities in Moatize, and the water issue discussed in this chapter is not an exception. This might have influenced the 2018 municipal election result. Although Frelimo, the ruling party, won the elections, it was by a tiny difference (1%) from the main opposition party, Renamo.¹⁶⁴ Renamo

¹⁶² Interview with Pedro Sebastião Vilanculos, Moatize, September 29, 2018.

¹⁶³ Interview with Lucas Alface, head of the social affairs department at the municipality, Moatize, April 27, 2018.

¹⁶⁴ Out of the 100% of the total valid votes, Frelimo got 48,84%, Renamo got 48,36%, and the Mozambique Democratic Movement (MDM) got 2,80%.

party contested the results allegedly for fraud. The Moatize District Court and the Constitutional Council dismissed the appeal.¹⁶⁵ So, in this case, the vote for the opposition party might have been a punitive strategy toward the Frelimo government for not addressing the mining issues.

When we conducted this research, the local government authorities argued that five new boreholes had been constructed in Chithatha as a water collection site to supply water to the local communities. However, only two boreholes were working due to the lack of funds. This was, according to them, one of the reasons why the communities, such as Bagamoyo and Nhanthere, were still experiencing a water crisis: “We have a water collection site in Chithatha, with five new boreholes to supply water to the city. But only two of them are working. There is enough water in those boreholes to supply the entire city. But now, the difficulty is the lack of money to purchase piping to match the boreholes’ capacity. So that is why we still have some neighbourhoods with no water.”¹⁶⁶

Most of our interviewees criticised both the mining company and the local government authorities for not effectively acting to solve the water crisis in Moatize. For them, the discourse about the lack of funds to improve the water supply in Moatize did not add up for two reasons. First, the Mozambican government benefited from the revenue from the coal mining extraction, and part of the money could be used to improve the water system supply for the local communities in Moatize. Second, the Vale mining company constructed a water system that transported water from the Rovúbwé River, an important river in the region, to its mining compound. So, the local communities argued that they could share the water with the local population. As a young man from Bagamoyo stressed:

There is a big water pipeline that goes to the company compound. So, they don’t have water issues. Why don’t they also bring that water here for the community? We wonder why the government doesn’t tell the mining company to put water here. They do have money. In other places, when the Chinese explore mineral resources, they put electricity and do many things to respect the local communities. But we don’t see it here.”¹⁶⁷

¹⁶⁵ See: CNE, “Edital: Autarquicas2018,” <https://www5.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/files/Resultados%20e%20mandatos%202018.pdf>; Acórdão n° 15/CC/2018, de 26 de Outubro, <http://167.71.131.195/Jurisprudencia/15-CC-2018>

¹⁶⁶ Interview with Ribeiro Coelho, head of the urbanization department at the municipality, Moatize, April 27, 2018.

¹⁶⁷ Interview with António Almeida, Moatize, April 24, 2018.

The local government authorities argued that they tried to negotiate with the Vale mining company to divert part of the water from their water transmission main to the communities, but the negotiations did not go well. A local government official said that communities such as Bagamoyo and Nhantchere, 1 de Maio and Liberdade, for instance, wouldn't have the water issues they had if the mining company agreed to share water with the communities:

The Vale company was willing to supply the city with water through its pipes, but things did not work as we wanted. If they had given water to the communities, Bagamoyo and Nhantchere wouldn't have these water issues. The two holes in Chithatha would supply water to some neighbourhoods, and the Vale mining company would help us with other neighbourhoods such as Liberdade, Bagamoyo, 1 de Maio, and Nhantchere.¹⁶⁸

This reflects the power asymmetry between the mining company, the local communities and the local government authorities. As I have mentioned in the previous chapters, the power asymmetry between the various actors involved in natural resource management influenced how the environmental effects of the mining activities were negotiated in Moatize, and the situation wasn't different with the water issue. Despite acknowledging the socio-environmental impacts of the mining fence on the local communities' water access, the government authorities could barely compel or influence the mining company to act in favour of the local communities. So, while the mining company monopolised hundreds of thousands of cubic meters of water from the Rovúbwé River to facilitate coal extraction activities, the local communities in Moatize struggled to get water for daily use. This 'relative deprivation'¹⁶⁹ raised a lot of frustration and anger among the local communities, mainly those close to the mining site whose access to the ponds and wells was jeopardised by the same mining company.

Water scarcity and the growing dissatisfaction of the local population due to the relative deprivation promoted by the mining company and the local government authorities might lead to future social conflicts in Moatize. Water scarcity is increasingly becoming one of the leading causes of social conflicts worldwide. The belief that "the next world war will be over water" calls

¹⁶⁸ Interview with Ribeiro Coelho, head of the urbanization department at the municipality, Moatize, April 27, 2018.

¹⁶⁹ Ted R. Gurr, *Why Men Rebel* (Princeton, New Jersey: Princeton University Press, 1970).

us to reflect seriously on the environmental issues leading to water scarcity, and the impact of mining on water access shouldn't be taken for granted. As I have discussed in this chapter, the mining activities also affected the water accessibility for the communities around the mining projects. While many ecological studies on the relationship between mining and water have focused on the impact of the mining activities on water quality and quantity and how it affects the livelihood of the local communities in the regions where extractive mining takes place¹⁷⁰, more ethnographical research needs to be done to explore the power and social relations, the symbolic meanings embedded in water as a natural resource and how the different actors mobilise and negotiate the conflicting interests at the local level.¹⁷¹

¹⁷⁰ Hlanganani Tutu, "Mining and water Pollution," *Water Monitoring and assessment* (April 2012); Lisseth Casso-Hartman, Paulina Rojas-Lamos, Kelli McCourt et al., "Water Pollution and Environmental Policy in Artisanal Gold Mining Frontiers: The case of La Toma, Colombia," *Science of the Total Environment* 852 (December 2022); Christian Wolkersdorfer and Elke Mugova, "Effects of Mining on Surface Water," *Encyclopedia of Inland Waters (second Edition)* 4 (2022); Singh, "Mitigating Environmental and Social Impact of the Coal Mining"; Mishra and Das, "Coal Mining and Local Environment"

¹⁷¹ Orlove and Caton, "Water Sustainability"; Budds and Hinojosa, "Restructuring and Rescaling Water Governance"

Chapter 5

“This is like a field where they only come to harvest the crops”

Coal mining and local development

“Considering the time Vale has been exploring coal in Moatize, it shouldn’t be like this,” said a young man from Bagamoyo neighbourhood – let us call him Samuel. “When the Rio Doce [mining company] arrived, they said, ‘We want to make Moatize like Brazil.’ But look at it; does it look like Brazil? With sand and dust? Are people in Brazil living without water? (...). They have big buildings, but they have water up to the last floor. Here we have simple houses but with no water – How come? If it was a government that respects its people, Moatize wouldn’t be like this. Moatize should be more developed than Maputo (...). Do you see how Maputo is? I only see it on TV. They construct buildings in Maputo with the money they get from here. What does Maputo have in terms of mineral resources? But where are all the projects? They are here in Tete. It is only now that these new Anadarko projects are coming in Cabo Delgado (...). The first rule is that Moatize should be a beautiful city. The Vale company makes a lot of money, and the city shouldn’t be like this. Things shouldn’t be like this. Moatize has contributed a lot of money to the Mozambican state. But all go to Maputo (...) Intaka project, X project, bridge (...). They should change it. They are using Moatize as a *machamba* (field). They get money here and go eat in Maputo.”

“Who are you referring to?” I asked.

“The ones who are ruling the country, Frelimo. They are the ones who decide everything,” replied Samuel.

“You said when they came, they said Moatize would be like Brazil. Do you think this will still happen?” I asked.

“No, my brother, it won’t happen (...). Forget about that. You can see it yourself (...). Just look at how the roads are. They are all bad. People struggle to drive their cars on the roads, especially during the rainy season. Sometimes, they go through the neighbourhoods levelling the roads with those big machines, but that is a temporary solution because when the rain comes, the roads are damaged again. Another issue is the street lights. They should put street lights in the neighbourhoods so people can walk without fear at night. We have had many cases of robbery in the streets during the night, and we have mentioned this many times during the meetings with the

local government, but nothing has changed. So, Moatize is the same as ten years ago; nothing has changed, and I don't believe it will change."

"Why do you think that?"

"Nobody believes things will change. Just imagine how many years have passed since they started exploring coal here. Don't you think they should have done something by now? They only want to explore the coal and nothing more. And we are here suffering from air pollution and mining blasts. Our houses are full of cracks, and we have no water. But at least they should solve the air pollution and water issues."

"What do you think is failing?"

"Is governance! I see nothing in governance. For me, everything is zero to the left.¹⁷² The government should do something to develop Moatize. With the money they are making from coal extraction, we wouldn't be talking about all these issues I mentioned. The people who are in the government should stop thinking only for themselves and their families. They know all these issues but are doing nothing to change them. If they at least convinced me on the water issue. The issues I worry about the most are the lack of water and air pollution."

* * *

In July 2007, the Mozambican government signed a contract with the Vale mining company to explore the Moatize coal deposit. The project envisaged a total investment of USD 1.535 billion for 35 years, with an expected annual coal production of 26 million tons.¹⁷³

The announcement of the Moatize mining project raised many expectations in the national public sphere, and there was a general belief that the mining project would promote economic growth and development and, consequently, improve people's quality of life. More than the country's citizens in general, the local population in Tete and Moatize, where the projects would be implemented, were more hopeful for a better life. They believed the projects would boost the local economy and create more job opportunities. This belief was also shared among some scholars

¹⁷² The term 'zero to the left', in Portuguese, '*zero à esquerda*', is used to qualify a person or thing with no value or useless. The term is originally from mathematics, where any zero to the left of any nonzero number has no value.

¹⁷³ Mosca and Selemene, *EL dorado Tete*, 19; Tomas Selemene, *Alguns desafios na Industria Extrativa em Moçambique* (Maputo: Centro de Integridade Pública, 2009): 14; Carlos N. Castel-Branco and Elton J. Cavadias, "O papel dos Mega Projectos na Estabilidade da Carteira Fiscal em Moçambique," Presentation, Maputo, 2009.

and Civil Society Organisations who analysed the mining projects' socioeconomic impact on the local communities in Tete. For instance, one of the first exploratory studies on the socio-economic impact of the mining projects in Tete, carried out by Mosca and Selemene in 2011, three years after the signing of the mining concession contract with Vale, pointed to an economic local dynamic due to the mining activities in the region. There was an increased domestic demand for goods and services such as housing, transportation, restaurants, banking, etc. The authors believed this dynamic created job opportunities, income for local families, and small business opportunities. As they argue, all this raised a perception of Tete as a place of opportunities with much money in circulation.¹⁷⁴

After almost eight years since the implantation of the mining projects in Moatize, it is essential to question whether the coal mining projects have contributed to local development.¹⁷⁵ Although many studies have been carried out after the Mosca and Selemene exploratory study, most focussed on resettled communities such as Cateme and Mualadzi.¹⁷⁶ The studies carried out outside the resettlement sites were more interested in analysing the environmental effects of mining activities on the local communities around the mining sites, such as air and water pollution.¹⁷⁷ However, little has been said in terms of the contribution of the mining projects to the improvement of local public services, such as roads, water supply and electricity. Although some studies have mentioned the lack of job opportunities for the local population in the mining projects, a lot still needs to be told, especially the life stories and feelings of the local population on the matter.

Drawing on the literature on extractivism and the “paradox of plenty”, this chapter argues that, despite the high level of foreign investment made in Moatize in the past few years, there was

¹⁷⁴ Mosca and Selemene, *EL dorado Tete*, 25-28.

¹⁷⁵ Development is a complex concept, and loaded with assumptions, especially within the extractive context where ecological sustainability is strongly compromised. Here, I use the term development from the perspective of improving the local population's quality of life both in terms of public service provided by the government and job opportunities.

¹⁷⁶ Human Rights Watch. “*O que é uma casa sem comida?*”; Osório and Cruz e Silva, *Corporações Económicas e Expropriação*; Wiegink, “Resettlements in Mozambique”

¹⁷⁷ Source International, *Estudo de Linha de Base (ELB) da Qualidade Ambiental e dos Direitos Humanos em Seis Comunidades Piloto Ameaçadas pelas Atividades de Mineração de Carvão em Moatize* (Tete: Source International, 2019); Ana Piedade Monteiro *et al.*, *Impacto Ambiental da Mineração de Carvão a Céu Aberto no Distrito de Moatize: Uma abordagem sobre Serviços Ecossistêmicos* (Maputo: SEKELEKANI, 2020); Trindade F. Chapare, Thierry B. Lummertz and Marta L. Fischer, “Impactos ambientais, objetivos do desenvolvimento sustentável e bioética ambiental: A exploração do carvão mineral no distrito de Moatize, Moçambique,” *Revista Iberoamericana de Bioética*, no. 14 (2020); Jânio C. J. Dambo, “Diagnóstico sócio-ambiental da Mineração de Carvão em Moatize, Moçambique – Como Subsídio ao Planeamento” (Master diss. Universidade Federal do Ceará, 2014).

a perception among the population that these investments have not contributed to local development, both in terms of better public services provision and job opportunities.¹⁷⁸ Most of our interviewees, including local leaders and municipal authorities, from whom politically correct responses are usually expected, argued that the mega-projects did not contribute to local development. For instance, a man residing in the Liberdade neighbourhood, besides comparing the Vale mining projects with the ex-state mining company Carbomoc, which, according to him, was better than the former, argued that Moatize was not developing the way they expected:

There is no development here (...). Even the name *Vila* (town), if I ask you to tell me where the Vila is, you won't tell me. We don't have a *Vila* (...). If we compare the former Carbomoc company [the former state mining company] with the current company [Vale], which is bigger than the former company, there is a big difference. It shouldn't be like this. Moatize is not developing the way we expected (...). They are only exploiting the coal (...). They should have at least done something for the local communities. It is very easy to convince people (...). But nothing has happened so far.¹⁷⁹

Some people even argued that the mining projects had worsened the city rather than improved it. For instance, Pedro Vilanculos, a young man from *25 de Setembro* neighbourhood claimed that Moatize was 20 years late and even going backwards. For him, the only remarkable thing that happened in the last years was the opening of the South African retail company store, PEP:

No, it is not developing. It's going backwards. It's 20 years late. For instance, if you look to the other side, from the Ruvubwe River to Tete City, you can see that it is developing (...). If you go to Matema and other places, you can see it. Moatize stopped in time, and the problems are always the same. This is a peasantry area, a village. If you look at the investments in Moatize, for instance, what have they invested so far? It is only PEP (...). It

¹⁷⁸ It is important to note that, unlike in previous chapters, the analysis presented in this chapter combines micro and macro-historical approaches. This is justified by the fact that the local development dynamics of the regions where extractivism occurs are intrinsically related to the development dynamics of the country as a whole.

¹⁷⁹ Interview with K. H., Moatize, 22nd September, 2018.

is the only visible investment in the last five years, and it was done last month. That is the only investment in Moatize.¹⁸⁰

The lack of local commercial centres and shops was one of the issues our interviewees complained about during our research. For instance, Amelia José, a Moatize citizen, asked why there wasn't Shoprite in Moatize: "Why don't we have Shoprite here in Moatize? There is one in Tete City, but it is far [around 20km]. We must get a bus and go to Tete City whenever we want to buy something we want. That is more money we have to pay for the transportation. We can't do it every day."¹⁸¹

Besides the commercial centres, as our interviewees referred to above, the perception that Moatize was underdeveloped was supported by the poor quality of the local public services, such as roads, health, electricity, and water supply, which, according to them, had not improved even with the level of foreign investment that the district had benefited from in the last years. Most of our interviewees complained about the poor road conditions in Moatize City, which conditioned the normal circulation of vehicles and people. The erosion that affected the region worsened the situation, especially during the rainy season. The municipal government, responsible for the public service provision in the municipal area, did not regularly maintain the roads:

The city shouldn't be like this because Vale makes a lot of money here (...). All the roads should be tarred and beautiful (...). But nowadays, everyone works to fill their own pockets (...). There is road construction that started in 2015 near the railway station. They [the municipal government] paved one side of the road, and on the other side, they stopped near the Petromoc. Things shouldn't be like this (...).¹⁸²

Another important road the local communities complained about was the road to the Carbomoc district hospital. They argued that they faced many difficulties in transporting sick people and pregnant women to the hospital due to the road conditions, especially at night. For instance, Lourenço Arnaldo, a resident of the Bagamoyo neighbourhood, criticised the local

¹⁸⁰ Interview with Pedro sebastião Vilanculos, Moatize, September 29, 2018.

¹⁸¹ Interview with Amelia José, Moatize, September 21, 2018.

¹⁸² Interview with José Adamo, Moatize, September 20, 2018.

government for prioritising the road to the local cemetery rather than the road people used to the hospital:

I will start by talking about the road from the Carbomoc intersection to the Moatize district hospital. That road is not good. The municipality constructed the road from the Transcarga to the cemetery but did not construct the road to the hospital. They should have built the road to the hospital first because the ambulance or the car should arrive quickly so the person can be saved. We can arrive late at the cemetery because we are going to bury a dead person (...). We are not in a hurry. But we cannot arrive late at the hospital. So, we ask ourselves, 'What are these people [the government authorities] thinking?'¹⁸³

The cemetery road mentioned by Arnaldo was the only reference road constructed by the municipal government in the last few years. As a young man we interviewed stressed, "The only thing he [the mayor] did is the cemetery, the paved road. That is the only road he constructed. Since then, nothing has changed (...)." ¹⁸⁴

Health was also one of the public services the local communities complained about. People criticised the public health centres' lack of basic patient care services. For instance, a man we interviewed in the field complained about the CFM health centre, whose functioning is limited to the morning period and during the week. Most of the time, they have to resort to the district hospital, which is difficult for the communities living far away from the hospital:

We have the CFM health centre in the city. But most of the time they only work until 12 pm. If you get sick at night, it's an issue because you have to go to Carbomoc Hospital. They also don't work on Saturdays and Sundays. If you get malaria on the weekend, you have to go to the Carbomoc hospital. Just imagine taking someone with cholera to the Carbomoc hospital at night; the person might die on the way because the roads are not good.¹⁸⁵

¹⁸³ Interview with Lourenço Arnaldo, September 25, 2018.

¹⁸⁴ Interview with Pedro sebastião Vilanculos, Moatize, September 29, 2018.

¹⁸⁵ Interview with Lourenço Arnaldo, September 25, 2018.

The situation in the *25 de Setembro* health centre was not different. The users of this health centre constructed by the Vale mining company for part of the Cipanga resettled families argued that it lacked almost everything, even a simple malaria testing kit. As a young man from the 25 neighbourhood stressed:

When Vale built these houses, they also built that hospital. If you go there, you will see it is still new. But they don't even have a simple malaria test (...). They will address you at the Carbomoc hospital. That [the Carbomoc hospital] is also a hospital with a corpse conservation system in a state of putrefaction. It doesn't work. If you put a corpse there, you must do the burial the next day; it can't stay there for a long time because the refrigeration system is not working properly.¹⁸⁶

As we can see from the words above, the Carbomoc hospital, the main hospital in the Moatize district, also did not escape people's criticism. Apart from the morgue, which wasn't working properly, the local communities also complained about the poor health services provided to the patients.

Regarding electricity, it is essential to mention that the main concern was related to the street lights as most people had electricity in their houses. According to them, the lack of street lights increased crime rates, conditioning people's movement in the communities. The water supply was another public service the local communities complained about. What worried them the most was that the local communities were facing a water crisis under the impassive gaze of the Vale mining company, which had enough water in the mining compound. As shown in the previous chapter, whilst the Vale mining company diverted water from the Rovúbwé River to use in the mining compound, the local population lacked water for daily use. Garbage collection was also one of the public services complained about by the local population. They argued that this service was almost non-existent in the communities as many people relied on homemade landfills. For instance, a man from Liberdade neighbourhood said, "Garbage is not collected at the same rate as it is deposited. There is less collection than what we deposit in the containers. So, this is something that worries all the citizens here in Moatize. There are some neighbourhoods where the garbage collection

¹⁸⁶ Interview with Pedro Sebastião Vilanculos, Moatize, September 29, 2018.

transport itself does not pass. There are even piles of garbage that block the roads people use daily.”¹⁸⁷

There was a general perception among our interviewees that the coal mining projects in Moatize were benefiting only southern Mozambique, especially the capital city of Maputo. It was in Maputo where, according to them, the most important investments in housing and public infrastructure were taking place, rather than Moatize, which contributed the most to the country’s economy. For instance, a man from the Bagamoyo neighbourhood argued that Frelimo, the ruling party, did not care about the local communities and used Moatize as a *machamba* (a field) where they came to reap crops and went back to eat in their houses in Maputo. In his opinion, Frelimo also used Moatize as a colony:

I don’t know why things are like this. They don’t care about us. For them, this is like a *machamba* [a field] where they only come to harvest the crops and go back to eat in their houses. Frelimo party is using Moatize as a colony. Because the exploitation they are doing is like a colony. For us, the colonisation here is not over yet. We are not free. We are still in the colony.¹⁸⁸

The perception that the advantages of coal mining extraction went to the south of the country was related to the ethnic regional conflicts that mark the country’s history. Since the country’s liberation struggle against Portuguese colonialism, individuals from the centre and northern Mozambique have always complained of the tribalism of the southern Frelimo leaders. They have always felt excluded from access to resources and important political positions, and this sentiment continues today.¹⁸⁹ So, the local communities in Moatize were not only excluded from the benefits of the coal mining extraction but also oppressed by the country’s political elite, who, according to them, were only concerned with capital accumulation. More than the mining companies, the local communities pointed to the government authorities as the main responsible for the underdevelopment of Moatize. For instance, a young man who worked as a mechanic at his house

¹⁸⁷ Interview with a man from Liberdade neighbourhood, Moatize, 22nd September, 2018.

¹⁸⁸ Interview with Lourenço Arnaldo, September 25, 2018.

¹⁸⁹ See: Sérgio Chichava, “Por uma leitura sócio-histórica da etnicidade em Moçambique,” *Discussion Paper* n.01/2008 (Maputo: IESE, 2008).

argued that Moatize did not develop because the government authorities allowed the mining companies to explore the coal mines, ignoring the local population:

I blame the house's owner because the other is only a guest. If I am the house owner, it means I am in charge. If I say 'don't come in,' you won't come in. Even If I told you, 'Let's sit in the sun,' you would obey me. So, if I say nothing, I allow the guest to do whatever he wants. So, it would be nice if the government authorities established norms for the mining companies to help the local population.¹⁹⁰

The local government authorities acknowledged the underdevelopment of Moatize and the precariousness of the public services. They argued that the mining companies did not contribute to the local development as they should. For instance, one of the municipal government officials blamed the national government for failing to compel the mining companies to collaborate with the local government toward local development. Thus, the mining companies not only did not have the initiative to improve the local public services, but they also did not want to collaborate with the local municipal government:

There is something that is failing on the mining companies' side. The companies should say, 'I want to rehabilitate this road (...)' It should be like that. 'I will put street lights on this road.' But it is a big challenge for us to collaborate with the mining companies. We don't easily get a feedback. So, I think the problem is with the memorandums of understanding. How were the memorandums done? We don't know (...). Because if a company was told, "Sir, go and introduce yourself to the district government. If you want to develop your activities in the city, go to the mayor and say that we want to do this, and you must do something for the local people."¹⁹¹

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¹⁹⁰ Interview with P.T., Moatize, 22nd September, 2018.

¹⁹¹ Interview with Ribeiro Coelho, head of the urbanization at the municipality, Moatize, April 27, 2018.

The issue of whether the natural resource boom contributes to the country's development has been extensively analysed in the literature on extractivism. It is generally argued that most countries “rich in natural resources, and whose economy is based primarily on extracting and exporting those resources, find it more difficult to develop.”¹⁹² This is known in the literature as the paradox of plenty or resource curse. Many countries rich in natural resources have experienced the resource curse. Despite the mass foreign capital investment and economic growth witnessed in those countries, it couldn't improve the citizens' living conditions.¹⁹³ Most of these economies, as Ferguson argues, are ‘socially thin’ as they “no longer leave nearly as much of a national-societal footprint as it did in the days of company towns, with their massive and regularised workforces, like in the old days of Zambia's mining industry.”¹⁹⁴ For instance, despite being one of the leading oil exporters in the world, with a high GDP growth rate, Angola was considered to be a country with one of the poorest people in the world, as the mining industry revenue was not able to impact the population's lives positively.¹⁹⁵ Despite the vast oil deposits in Equatorial Guinea and its contribution to the country's significant economic growth rates, it only benefited a small elite of politicians and their families, as the majority of the population continued living in poverty and had no access to public services such as clean water and education.¹⁹⁶

In the last few years, some scholars have focused on analysing the relationship between mining and development at the subnational level. Despite the change in the scale of analysis, the results have proven not different from those verified at the national level. Despite the discovery of natural resources and their exploitation, they usually do not translate into improving the lives of the population where the extraction occurs, as most of them continue living in poverty.¹⁹⁷ For instance, the local communities around the mining area in Mpumalanga province, in South Africa, had a general sentiment that rather than improving their lives as promised by the mining companies

¹⁹² Acosta, “Extractivism and Neoextractivism,” 61.

¹⁹³ Stiglitz, *Making globalization work*; Acosta, “Extractivism and Neoextractivism”; Gudynas, “Extractivisms: Tendencies and consequences”; Calvão, Archer and Benya, “Global Lives of Extraction”

¹⁹⁴ Ferguson, *Global Shadows*, 205. The Zambian copper mining during the colonial era is pointed by Ferguson as a “classic example” of an extractive project with a solid social component for the local communities around the mining sites; what he calls ‘socially thick’. For instance, apart from the houses provided by the mining company, the company towns included schools, hospitals, movie theatres, sports clubs, and training courses to help the workers' wives be housewives and modern mothers. Even after the country's independence in 1964, the mining projects continued socially thicker until the mid-1970s, when they started declining.

¹⁹⁵ Ferguson, *Global Shadows*.

¹⁹⁶ Ferguson, *Global Shadows*, 202.

¹⁹⁷ James Cust and Steven Poelhekke, “The Local Economic Impacts of Natural Resource Extraction,” *Annual Review of Resource Economics* 7 (October 2015); Shongwe, “The Impact of Coal on Environment”; Banks, “We are Bruno”

when they arrived, the projects produced a reverse effect. Local communities not only paid the costs of the extractive industry's externalities, such as air pollution, water pollution and the disruption of the entire ecosystem, but they also became poorer than before the mining projects' arrival.¹⁹⁸ Nevertheless, although not widely explored, the analysis of the impact of natural resources on the sub-national level has also focused on public service provision. Some studies show that, in general, people living close to the mining site are less likely to approve of government performance in terms of public service delivery.¹⁹⁹ The narratives and life experiences analysed in this research are an example of that disapproval. The local communities in Moatize showed dissatisfaction with the government authorities regarding public service provision such as roads, health, electricity, and water supply. One interesting thing that emerged from our interview was that although the mining projects were still in progress, our interviewees were sceptical about the possible improvement of the situation in the future. For them, the number of years that Vale had been operating in Moatize without significant impact on the local development was evidence that nothing could change. Konte and Vicent's study shows that people near mining areas are "less likely to be optimistic about their future living standards."²⁰⁰ This contradicts the mining company's alleged promise of making Moatize developed like Brazil. Nonetheless, that promise is somehow ironic because Brazil is also a country that faces many mining issues. Despite the mining extraction carried out in several regions of the country, including by Vale mining company, the country is still marked by social inequalities as the majority of populations around the mining sites are still living in poverty. Apart from socio-economic issues, there are various examples of environmental degradation that jeopardise the livelihood of the local population. The disasters caused by the Vale mining company in Mariana and Brumandinho in 2015 and 2019, respectively, mentioned in chapter three, are a clear example of mining issues in Brazil.²⁰¹

Some scholars have suggested alternatives for the mining projects to promote development in the communities around the mining area, and, in one way or another, these suggestions converge on an essential element: governance. Depending on how the country's natural resources are

¹⁹⁸ Shongwe, "The Impact of Coal on Environment," 73.

¹⁹⁹ Maty Konte and Rose C. Vincent, "Mining and quality of public services: The role of local governance and decentralization," *World Development* 140 (April 2021); Nemer Mamo, Sambit Bhattacharyya and Alexander Moradi, "Intensive and extensive margins of mining and development: Evidence from sub-saharan Africa," *Journal of Development Economics* 139 (June 2019).

²⁰⁰ Konte and Vincent, "Mining and quality of public services," 15.

²⁰¹ António L. Oliveira and Daniel N. Silva, "Mineração e Desenvolvimento: Uma Análise dos Municípios Mineradores do Pará", (Paper presented at 18th Seminar of Diamantina, Diamantina, August 2019).

governed, they might promote socioeconomic development. Acosta, for instance, proposes some economic measures such as making more social investment in areas where extraction occurs, transparency on the information about the income obtained by the multinationals, the local government and national government, and increasing the involvement of civil society organisations in the oversight of extractive projects.²⁰² The social investment in the area where the resource extraction takes place helps to reduce the social protests, as the local communities would feel included in the benefits of the extractive projects. As a young man in one of our focus group discussions stressed: “With jobs and my family living well at home, I wouldn’t worry; even knowing that we are suffering from mining blasting, I would say, ‘Indeed, we are suffering from mining blasting, but we are benefiting from the mining activities.’”²⁰³ The issue of transparency raised by Acosta is also an essential element in countries rich in natural resources, as it can enable citizens to know how much multinationals and the government are earning from the extraction of natural resources. This can also allow citizens to hold the government authorities accountable when they are not using the money to invest in social programmes that enable them to improve their quality of life. Civil society’s participation plays a crucial role in contexts of extractivism. As Acosta argues, the involvement of civil society prevents decisions about natural resources from being defined solely by the main actors, multinationals and the state. This opens spaces for debate on how natural resources are used and challenges the anti-democratic atmosphere that characterises the extractive industry.²⁰⁴ Nevertheless, as I have referred to in chapter 3, sometimes, civil society organisations might be coopted by multinationals and governments, strongly reducing the impact of their oversight role on the extractive projects.

Konte and Vicent point to the quality of local governance and the capacity of the local government institutions to capture revenues from mining projects and other local businesses as the necessary elements to promote local development. According to the authors, the government’s legal rights and power over mining tax and revenue is a crucial element to consider in analysing the natural resources on the provision of local public goods and services.²⁰⁵ Nevertheless, it is important to remember that in many resource-rich countries, the mining industry royalties are under the central government’s control, and there is little room for the local government authorities

²⁰² Acosta, “Extractivism and Neoextractivism,” 62.

²⁰³ Focus group discussion with youth, Moatize, 21st September 2018.

²⁰⁴ Acosta, “Extractivism and Neoextractivism,” 79.

²⁰⁵ Konte and Vincent, “Mining and quality of public services,” 2.

to collect tax from the mining projects. Mozambique is not an exception. Apart from the concession agreements with the multinationals, the central government controls all the revenue from the country's mining projects. For instance, the municipal governments where the resource extraction takes place have no power over the extraction revenue.²⁰⁶ Although Konte and Vicent suggest that in such contexts, the local government authorities should try to collect taxes from businesses related to mining projects, this suggestion also imposes a very practical limitation. In many African contexts, the local governments are institutionally weak and unable to maximise their local tax base.²⁰⁷ This is, for instance, one of the challenges faced by the municipalities in Mozambique, of which Moatize is also part. Despite having a favourable legal framework for tax collection, factors such as the lack of qualified human resources, a registration system and a database of potential taxpayers hinder municipal governments from collecting all the fees and taxes legally established.²⁰⁸ So, it is not only a matter of maximising the collection of local taxes; these local governments must create the institutional capabilities that allow them to collect such taxes effectively and efficiently.

Apart from the elements above, Konte and Vicent also point to the “intergovernmental fiscal arrangements on taxes and revenue as a crucial element for a positive effect of the mining projects on local development.”²⁰⁹ This would allow the local governments to benefit from the mining revenue to finance their local governance plan and improve local public service provision. For instance, the Peruvian state has created the *canon minero*, which transfers 50% of the mining revenue (mineral, metal and non-metal resources) revenues to the regional and local governments, including districts and municipal provinces where the resource extraction occurs. These governments use the money to finance social programs in housing, health, education, and other public services.²¹⁰ In Mozambique, 2.75% of the revenue the state generates from mining and oil

²⁰⁶ See: Lei de Minas (Lei n.º 20/2014).

²⁰⁷ UN-HABITAT, *Challenges of Municipal finance in Africa: With special Reference to Gabarone City, Botswana*, (Nairobi: UN-HABITAT, 2010); Odd-Helge Fjeldstad, Gérard Chambas and Jean-Francois Brun, “Local government taxation in Sub-Saharan Africa: A review and an agenda for research,” Working Paper 2014: 2, CMI, Bergen, 2014.

²⁰⁸ Bernhard Weimer, “A base Tributária das Autarquias Moçambicanas: Características, Potencial e Economia Política,” in *Descentralizar o Centralismo? Economia Política, Recursos e Resultados*, ed. Bernhard Weimer (Maputo: IESE, 2012); Bernhard Weimer and João Carrilho, *Political Economy of Decentralisation in Mozambique* (Maputo: IESE, 2017).

²⁰⁹ Konte and Vincent, “Mining and quality of public services,” 2.

²¹⁰ See: Carol Pebe, Norally Radas and Javier Torres, “The mining canon and the budget political cycle in Peru’s district municipalities, 2002-2011,” *CEPAL REVIEW* 123 (December 2017); Fernando M. Aragón and Juan P. Rud,

extraction is channelled to the development of the local population in the area where the resource extraction is located. The amount is part of the annual state budget and is channelled to the local government. The local communities around the mining site in Moatize are also entitled to this amount.²¹¹

However, one might question why Moatize is still underdeveloped and has precarious public service provision despite benefiting from 2.75% of the total revenue from coal mining projects. This is a critical question to tackle because one of the problems with this kind of intergovernmental fiscal arrangement on mining revenue sharing is that they are usually difficult to track, mainly when the governments are not transparent or accountable to the public. To avoid such issues, there is a need for a more profound fiscal reform, such as fiscal decentralisation. More fiscal decentralisation in the areas where the resource extraction occurs would allow the local government or municipalities to collect taxes and fees directly from the mining companies. This would enlarge the local government's financial capability to invest in social programmes and improve local public services. I think fiscal decentralisation would solve the underdevelopment and public service precariousness in Moatize. The municipal government, for instance, should also have the legal right to collect taxes and fees from all the mining projects carried out in the municipal territory and invest part of the revenue in improving the public service provision. This proposal is anchored in the belief that decentralisation brings the government closer to the citizens both geographically and institutionally. Thus, they are better positioned to know citizens' needs and priorities.²¹² So, the greater the fiscal decentralisation in the mining economies, the greater the mining projects' contribution to the municipal or local government revenues. As Larraín and Perelló argue, “In resource-abundant economies, the degree of fiscal decentralisation is intrinsically related to the direct contribution of resource revenues to local governments.”²¹³ For instance, in Chile, although the municipalities do not control the mining royalties resulting from

“Natural Resources and Local Communities: Evidence from a Peruvian Gold Mine,” *American Economic Journal: Economic policy* 5, no. 2 (May 2013): 5-6.

²¹¹ See: Lei de Minas (Lei n.º 20/2014), Art. 20 (1); Lei no. 29/2022, Art. 6 (1); Osório and Cruz Silva, *Corporações Económicas e Expropriação*.

²¹² Pranab Bardhan and Dilip Mookherjee, “Decentralizing antipoverty program delivery in developing countries,” *Journal of Public Economics* 89, no. 4 (April 2005); Diana Conyers, “Decentralisation and Service Delivery: Lessons from Sub-Saharan Africa,” *IDS Bulletin* 38, no. 1 (2007); Akpan H. Ekpo, “Decentralization and Service delivery: A framework,” Prepared for the African Economic Research Consortium (AERC), Nairobi, Kenya, (2008).

²¹³ Felipe Larraín and Oscar Perelló, “Resource Windfalls and Public Sector Employment: Evidence from Municipalities in Chile,” *Economia* 19, no.2 (Spring 2019): 130.

the mining activities, they have the legal right to the mining licenses, which the multinationals have to pay before initiating their mining activities in the municipal territory, and the license has to be renewed annually. Thus, part of the revenue is channelled to the National Fund for Regional Development (FNDR), and the remaining amount is used to finance municipal programmes and improve local public services.²¹⁴ Nevertheless, for fiscal decentralisation to occur in a resource-rich country, the leaders of the central government must have a real commitment to the well-being of their citizens. However, if the central government authorities are “revenue hungry and unconstrained”, using Bhattacharyya *et al.*'s words, then resource discovery might encourage more fiscal centralisation as the government authorities might want to use the revenues to expand their political patronage and secure their national legitimacy.²¹⁵

* * *

“The issue of unemployment touches me a lot,” said Ridwane “Even if the president came here today to meet with the community, I would tell him, ‘You are working badly’. All the riches of the south come from here. But that money is not used for us, why? (...). Why can’t they also do things that benefit us here? If we are complaining about the issue of air pollution and mining blasts, it is because we don’t have jobs. With jobs and my family living well at home, I wouldn’t worry; even knowing that we are suffering from mine blasting, I would say, ‘Indeed, we are suffering from mine blasting, but we are benefiting from the mining projects. ’But because it only benefits people from outside, it is hard and hurts a lot.’”²¹⁶

“In your opinion,” I asked, “the mining projects only benefit people from outside?”

“Yes!” replied Ridwane “People from the south. It is not my opinion – it is the reality. We are being used. Are there no skilled people here who can work in the mines? Why does it have to be only people from the South? When the mining companies come, why do they establish headquarters in Maputo while everything is done here in Moatize? All the headquarters should be here because the coal extraction is happening here in Tete. When we hear, ‘The X company is in Tete and is recruiting people,’ we ask, ‘Where is the office?’ they say the offices are in Maputo

²¹⁴ Larraín and Perelló, “Resource Windfalls,” 132-133.

²¹⁵ Sambit Bhattacharyya, Louis Conradie and Rabah Arezki, “Resource discovery and the politics of fiscal decentralization,” *Journal of comparative Economics* 45 (May 2017): 367, 372.

²¹⁶ Focus group discussion with youth, Moatize, 21st September 2018.

and only have a small branch here. When you go there for a job, they usually ask, ‘Do you have 10 thousand to get the job?’”

“You have to pay 10 thousand to get a job?”

“Yes,” said Ridwane “I can give you a clue now; you can go there and ask yourself (...). With 10 or 15 thousand *meticaïs*, you get a job. If you don’t have money, you can’t get a job. Even the municipal and the district government authorities know this well. A friend of mine paid money, and now he is working.”

“Did any of you experience that?”

Santos said, “I started applying for a job since 2015 until now. I have just applied for a job in a company called Komatsu in Cithatha. I submitted my documentation, but they did not call me yet. So, I know how these things are.”

“Here, things are ugly, my brother,” added Ridwane “Even if a company comes to Moatize, they employ only three or four local people. If the white men say, ‘We want to employ 300 people’, if you don’t have money, you won’t get the job. You must have a *padrinho* [someone who helps you to get a job through bribery]. What works here is bribery.”

“Do you talk to the government authorities about these issues?” I asked.

“They all know about it,” said Brisdo “We always complain about jobs in the meetings with the mayor and the head of the district government. Even Mr. Governor knows about this. But they only say, ‘We heard and will talk to the mining company’. But nothing happens (...).”

* * *

The lack of job opportunities for the local population in the mining companies was also one of the issues raised by our interviewees, mostly young people. As we can see from the above vignette, despite the number of job opportunities created by the mining industry, the local population complained about not having access to such opportunities. They argued that the job opportunities went to foreigners and people from other regions of the country.

In their exploratory study, Mosca and Selemene refer to the massive immigration witnessed in Tete and Moatize due to the mining projects. Apart from the nationals from different regions of the country, there were people from various countries who immigrated to Moatize for long and

short-term jobs. As the authors reported, the lack of qualifications among the local population was the reason behind the companies' preference for the migrant workforce over the local one.²¹⁷

The lack of qualification argument as the reason behind the high levels of local unemployment in Moatize divided opinions among our interviewees. Although some people acknowledged that some jobs required specific technical qualifications, they argued that the argument was not wholly valid because there were people with technical skills among the local communities who were still unemployed. For instance, António Almeida, a young blacksmith, complained about being unemployed even with his technical skills:

I was born here; the company came and found me here. But I am not working. I am a blacksmith. I learned at Dom Bosco, where I studied for three months and was awarded a certificate. When people who are working in the company come here and see my job, they used to say, 'You are doing a good job! Why don't you want to work for the company? People are working in the company, receiving thirty or forty thousand [*meticais*], but they are not doing a good job. 'I want to work for the company but don't have the money to get the job. Only *Maputecos* [people from Maputo] and people from Quelimane are working there. We are not banning people from other provinces from coming to work here. But the greater number should be ours than the *vientes* [a term used to describe people from other regions of the country].²¹⁸

Besides complaining about the job opportunities given to the migrants, António Almeida also referred to not having money to get a job in the mining companies. This was related to an alleged corruption scheme in the job recruitment process mentioned by our interviewees. People had to pay between 10 thousand *meticais* (roughly 167 USD) and 15 thousand *meticais* (around 250 USD) to get a job in mining companies or mining-related business companies. These amounts were almost impossible for the majority of the population who didn't have a source of income. As an unemployed young man argued, "Some local people can work with those machines, but how

²¹⁷ Mosca and Selemene, *EL dorado Tete*, 29.

²¹⁸ Interview with António Almeida, Moatize, April 24, 2018.

can they get the job? You can submit your CV, but you won't be selected. They want ten thousand. So, where are we going to get that money?"²¹⁹

However, others were more realistic and acknowledged that many people in the community did not have the technical qualifications to work in the mining companies. As a man from Bagamoyo neighbourhood stressed, "Nobody can do a job without the necessary qualifications for such activity. If they say, 'We want a driver,' and the person doesn't have a driving license, then it means he doesn't have the necessary qualification."²²⁰ Another interviewee, a community leader in the Nhantchere neighbourhood, also commented on the same matter:

Many young people are unemployed, even me. It is not everyone in the world who went to school. All these companies here need people with grade 12, and what about us, who have not gone to school? How shall we survive? At least during Samora's time, he used to select peasant children and send them to school so they could be someone. But now things have changed. If you don't have money, your children won't study. That is why the country is bad. In my area here, he [pointed to a young man sitting beside him] is the only person working in one of the companies there. The company is called "MP Consultores". It is a consultancy company that provides services to Vale mining company. Most of the workers come from southern Mozambique, South Africa, and Zimbabweans — people who can speak English. So, what about those of us who can only speak Portuguese and can't speak English?²²¹

The absorption of the migrant workforce (*vientes*) over the local workforce generated social tension in the local communities in Moatize as it influenced how the local population saw and related to them. The local communities saw the *vientes* as the privileged ones, those who came to take their job opportunities. Thus, the *vientes* usually felt discriminated against by the local population. For instance, Sebastião Vilanculos, a young man from Maputo who worked at the Vale mining company, argued that he felt like he was in a foreign country: "We are *vientes* [people from other regions of the country]. I am from Maputo, but I feel like I am in Zimbabwe (...). I don't feel

²¹⁹ Carlos Almoço, intervention in the Focus Group discussion with youth, Moatize, 21st September 2018.

²²⁰ Interview with Filipe Vulande, Moatize, 23 September, 2018.

²²¹ Interview with José Sainete, Moatize, September 24, 2018.

like I am in Mozambique. Do you see what is happening? I feel like a stranger but in my own country. Here we have what is called regionalism; You see.”²²²

The analysis of the relationship between local populations and the so-called *vientes* in contexts of extractive mining in Mozambique was extensively analysed by Chambe, who, focusing on the village of Namahumbir in the northern province of Cabo Delgado, shows how the discovery of gemstones – especially rubies – caused people from various regions of the country to that village in search of job opportunities in the mining companies and artisanal mining. This mobility of people implied land sharing with the local population, which most of the time generated conflicts between them.²²³

In general, the mining and oil industries create few direct and indirect jobs compared to other sectors of the economy. They use highly mechanised technology and only employ highly skilled people and, most of the time, foreigners, excluding most of the local workforce.²²⁴ Sometimes, the weak absorption of the local workforce in the global south can be seen as a strategy used by multinationals to have a flexible workforce, which prevents them from having social responsibilities with the local communities. As Nixon argues, multinationals “prefer to import labourers from rival communities or distant lands rather than create jobs for communities most immediately affected by extraction operations. This practice, in turn, impedes labour unions and civic organisations from developing – organisations that could mesh the workplace with the priorities of neighbouring communities (...).”²²⁵ This reflects the violent features of the extractive industry, which is concerned with capital accumulation and ignores the local population's well-being.

The discussion in this chapter shows that, in general, the population of Moatize believed that the mining projects did not contribute to local development, both in terms of public service provision and job opportunities for the local communities. It was evident from the narratives above that there was a perception of regionalism regarding the benefits of the mining projects, as the local communities believed the benefits were mainly directed to the country's southern region. It was in the south, especially in the capital city of Maputo, where the most important investment in

²²² Interview with Pedro sebastião Vilanculos, Moatize, September 29, 2018.

²²³ Zacarias M. Chambe, “Entre ‘Vientes’ e os Nativos: Mineração, Mobilidade, Violências e (re) existências em Montepuez, Moçambique,” (PhD diss., State University of Campinas, 2021)

²²⁴ Ferguson, *Global Shadows*, 205; Acosta, “Extractivism and Neoextractivism,” 68.

²²⁵ Nixon, *Slow Violence*, 71.

public services took place. The same happened with job opportunities. According to the local communities' perception, people from other regions (*vientes*) were the ones who benefited the most from the job opportunities generated by the mining projects.

Conclusion

The boom of coal mining projects in Tete province has raised many expectations among the local communities, who saw the projects as an opportunity to improve their living conditions. However, rather than improving, this research has shown that the Vale resettlement disrupted the lives and livelihoods of the local population in Moatize in multiple dimensions: socially, economically, culturally and spiritually. For instance, the displacement of the potters from the place where they used to make house bricks to give room to the coal mining extraction affected the entire chain of people who had pottery as a source of livelihood. The exhumation of the bodies from the Chipanga cemetery to give room to the mining activities without people's consent is an example of how the Vale mining resettlement disregarded the cultural and spiritual issues of the local communities in Moatize.

The water issue analysed in chapter 4 is another example of the mining projects violating the community's values, as the construction of the mining fence not only blocked the local populations' access to the ponds where they fetched water but also disrupted the social relations and people's identities with the space. This is related to the ecological damage caused by the Vale mining project in Moatize. The research results have also shown how the violence of the coal mining extraction, such as air pollution, sound pollution and ground shaking due to mine blasting, have conditioned not only the daily life of the local population but the entire ecosystem.

The power asymmetry between the various actors in negotiating the environmental effects of the mining extraction in Moatize is another crucial element that stood out in this research. The Vale mining company, due to its financial power, influenced the outcome of the negotiation of the mining issues to secure the continuity of its extraction activities. And the government authorities did almost nothing to protect the local communities' interests. This raised the perception among the local population that the government authorities were more concerned with the benefits of the coal mining extraction than the well-being of the local communities affected by the project. This perception extended to the impact of mining projects on local development. As the analysis in chapter 5 shows, according to the local population, the mining projects did not contribute to the local development, whether in terms of public service provision or job opportunities for the local population. This was also related to the perception of regionalism in terms of the distribution of

revenues from the coal mining projects, which, according to the local communities, were directed to the south region of the country, mainly the capital city of Maputo.

Nevertheless, the resettlement analysis and discussions presented in this thesis suggest the need to question and rethink the logic of resettlement. As this research has shown, resettlement is a process characterised by a certain logic, among which is the logic of “equivalence” in Fabiana Li’s sense. This logic is often anchored in the capitalist economic system idea that everything is equivalent to money. Thus, the resettlement practice seems the same whether the state or non-state actors execute it. In both cases, the “logic of equivalence” through compensation is perceived as the appropriate approach to avoid conflicts with the local communities. However, as I have shown throughout the thesis, this logic ignores several other realms of values, such as religious/spiritual and cultural values, in Sara Trainor’s sense. So, unless the resettlement process is designed differently and considers those realms of values other than economic values, it will continue disrupting the lives and livelihoods of the local communities affected by the development projects.

Many issues analysed in this research open room for more questions. For instance, after five years since this research was carried out in Moatize, how did the potters' issue evolve over time? The same question can be asked regarding the cemetery issue. How did the issue of exhumed bodies from the Chipanga cemetery end? Is the Cateme cemetery still not in use? Last but not least, it is also essential to know how all these mining issues turned out with the withdrawal of the Vale mining company after selling its assets to Vulcan Minerals, an Indian mining company, in 2021. There is no doubt that to provide answers to these questions requires further research.

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