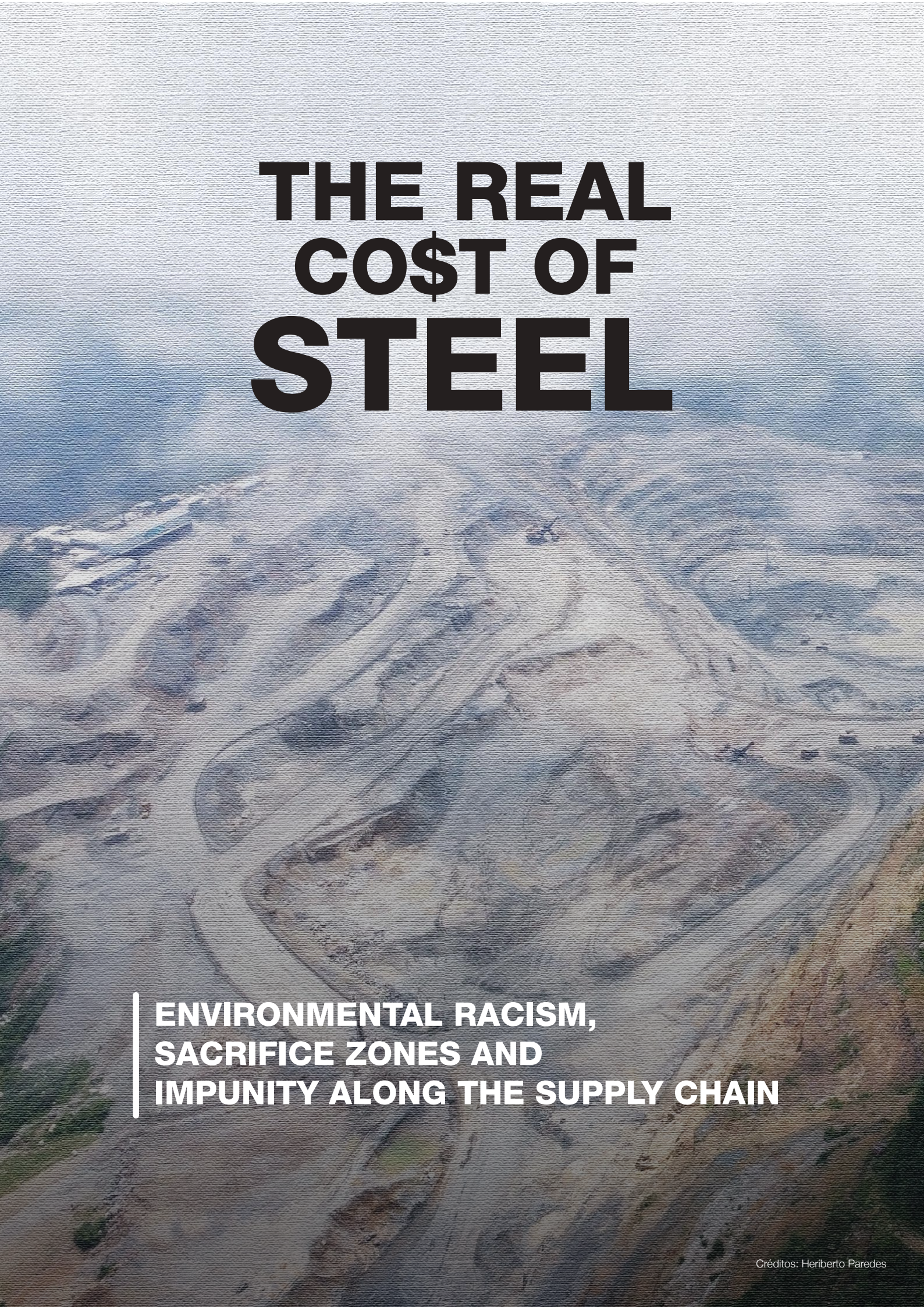




# THE REAL COST OF STEEL

**ENVIRONMENTAL RACISM,  
SACRIFICE ZONES AND  
IMPUNITY ALONG THE SUPPLY CHAIN**



# Executive Summary

**T**he steel industry is a significant contributor to environmental degradation and social inequities, but is rarely in the spotlight. This comprehensive report scrutinizes the environmental and human rights impacts of steel production, focusing on the operations of two multinationals: ArcelorMittal and Ternium.

The Fair Steel Coalition, composed of 15 NGOs from both the Global South and Global North, has selected emblematic cases to challenge the narrative of development that puts profit over dignity, revealing a troubling pattern of environmental racism and systemic impunity within the steel industry. The report proposes a different path towards corporate accountability in the steel industry, a path that is built on shared responsibilities from other countries, financial institutions and stakeholders with great influence in the sector.

Our findings shed light on the courageous struggles of a diverse group of rightholders: indigenous and tribal people, affected communities, workers or families tirelessly searching for those who disappeared defending the environment. All of them call for urgent and comprehensive action to address these systemic injustices with a victim centered approach. Noting that sacrifice zones are expanding around the iron ore mines that these two companies rely on to fuel their factories, our findings underscore the need for transformative actions from multiple actors to address these profound challenges.

The five case studies presented in this report span the globe – from Mexico to Liberia, South Africa and Brazil. Each reveals that despite corporate narratives and government policies that superficially embrace climate action, green transitions, and human rights, efforts remain profoundly insufficient. The prevailing strategies not only fail to rectify past and ongoing injustices but are set to further entrench environmental racism and exacerbate longstanding disparities along racial, gender, class, and colonial lines. This systemic failure leads to the unabated exploitation and devastation of lands, waters, and forests vital to indigenous and tribal communities, often stripping them of their rights and self-determination to pave the way for expansion. Moreover, it manifests in the continued pollution of impoverished neighborhoods, harming their health and limiting their livelihood options, with the acquiescence of regulators.

Most alarmingly, in regions where advocating for land rights, self-determination, and a healthy environment is met with severe risks, corporations continue to profit amid a culture of fear and silence. This is evidenced by the unresolved murder and disappearances of community advocates in México such as Higinio Trinidad de la Cruz, Antonio Díaz Valencia, and Ricardo Lagunes Gasca.

The report highlights critical findings and recommendations for stakeholders at all levels, aiming to catalyze meaningful change and ensure a just future for all communities impacted by steel production.

# Key Findings

**Systemic Environmental Racism & "Sacrifice Zones":** The report brings to light the severe and disproportionate environmental impacts, including extensive pollution and significant health risks, endured by communities of color situated along the supply chains of steel producers, ArcelorMittal and Ternium. These communities, primarily composed of Black, Brown, Indigenous, and tribal populations, are entrenched in areas now regarded as "sacrifice zones" where they bear the brunt of industrial disregard and suffer from chronic neglect in terms of health and safety protections. This exploitation is compounded by an alarming pattern of violence against environmental defenders within these communities, who face threats, disappearances, and murder, often with impunity.

**Undermined Self-Determination & Lack of Access to Remedies:** The report further reveals imposed projects lacking proper consultation and consent, and developed without engagement with affected communities in decision-making processes. The absence of environmental and human rights impact assessments impedes the design of serious mitigation, rehabilitation and remediation plans. Communities are denied their right to access information, leaving them uninformed and excluded in developments that directly affect their lands and lives. The case studies illustrate earnest struggles of affected communities in search for environmental justice, exposing a distressing lack of access to legal remedies and prevailing impunity within sacrifice zones. This pervasive culture of impunity shields corporate and governmental misconduct, underscoring systemic failures and barriers hindering communities' pursuit of truth and accountability.

**Inadequate Corporate & Regulatory Responses:** Both highlighted companies, despite their global presence and influence, maintain complex corporate structures that hinder accountability for localized environmental and social damages. Their sustainability and human rights policies, code of conduct, and reporting practices are superficial, and do not include the duty to respect human rights and prevent, mitigate and remedy the impact their activities are having. They lack effective and accessible grievances mechanisms suitable for addressing the complex issues involved in their operations, especially when they operate in conflict and violent zones. Their current environmental strategies and emissions reduction targets are critically evaluated as insufficient, particularly when compared to more stringent measures in developed regions.

**Lack of sufficient action from the international community,** particularly from financial institutions and countries where corporations are domiciled or maintain significant commercial ties. Despite clear evidence of corporate wrongdoing and violations of human rights along the supply chain, these entities have failed to hold corporations accountable for their actions. The absence of transparent and accessible grievance mechanisms at the institutional level further compounds the issue, leaving affected communities without proper recourse for addressing adverse impacts.

# Primary Recommendations

In addition to recommendations pertaining to each specific case study, the report outlines general recommendations for (1) ArcelorMittal and Ternium, (2) Home States and Third States, (3) Host States, and (4) Investors of ArcelorMittal and Ternium. Recommendations include:

Adopt a comprehensive approach to address climate change and fully remedy all environmental and human rights impacts reported, with a roadmap centered in people and nature.

03

**Respect self-determination, the right to Free Prior and Informed Consent and fair access to shared benefits** of indigenous and tribal peoples, consulting with and providing redress to all affected communities and workers. Overall, the report emphasizes a shift towards a more equitable and environmentally responsible steel production paradigm, aligning corporate strategies with global environmental and human rights goals – prioritizing the well-being of affected communities over profit margins.

**Enhanced Corporate Accountability and Redress:** The report calls for immediate and significant action from ArcelorMittal and Ternium to address the environmental and human rights abuses detailed. It advocates for strong and effective due diligence, transparent and accountable practices, and meaningful engagement with affected communities, including rehabilitation, remediations and humanitarian actions to address the impacts reported.

**Stringent Regulatory and Oversight Mechanisms:** There is a strong appeal for home and host states, as well as global investors, to enforce stricter regulatory frameworks that compel multinational corporations to adhere to higher standards of environmental protection and human rights. The establishment of binding international regulations and robust due diligence processes is urged to prevent future injustices.

**Demand for a zero-tolerance policy for attacks,** reprisals, violence, stigmatization and persecution against environmental and human rights defenders, establishing safety protocols, an accessible grievance mechanism, internal investigations, as well as using all its influence to retrieve information and contribute to a humanitarian recovery of the defenders that are still missing.

# THE REAL COST OF STEEL

## ENVIRONMENTAL RACISM, SACRIFICE ZONES AND IMPUNITY ALONG THE SUPPLY CHAIN

There is growing recognition of the steel sector's outsized contribution to the global climate crisis with over 7% of annual global greenhouse gas emissions<sup>1</sup>. A lesser acknowledged crisis is happening at the local level where steel plants and iron ore mines operate. These are the sacrifice zones where environmental contamination, violence and impunity combine in a toxic mix that puts at risk the lives and futures of mostly black, brown, Indigenous and tribal people, and with differentiated impacts on women in the interest of profit.

---

<sup>1</sup> Ritchie, H. (2020, September 18). Sector by sector: where do global greenhouse gas emissions come from? Retrieved from: <https://ourworldindata.org/ghg-emissions-by-sector>; Ashley, C. (2023, May 4). Where is the urgency? Complacency won't drive decarbonisation of steel. Retrieved from: <https://steelwatch.org/commentary/where-is-the-urgency-complacency-wont-drive-decarbonisation-of-steel/>

The group of organizations that present this report came together as part of the Fair Steel Coalition during the last year to share concerns about the impacts of iron ore mining and steel production and their struggle for accountability from two leading companies: Ternium and ArcelorMittal. We seek to amplify voices and experiences from the fenceline along the steel value chain. We believe that it is vital to hear from those who are not responsible for the climate crisis<sup>2</sup>, but who are nonetheless being disproportionately affected by it. And for whom decarbonization proposals are neither sufficiently ambitious<sup>3</sup> nor adequate to address the extent of harms and multiple crises – social, economic, environmental and human rights – that affected people face. We need to hear and understand these perspectives in order to radically shift course and pursue a just vision for the future with these communities and people at the center.

The Fair Steel Coalition presented ArcelorMittal questions ahead of the official publication of the report, to which they have responded stating that ArcelorMittal is addressing all the concerns which have been raised by communities, both in policy and practice<sup>3</sup>. In response, The Fair Steel Coalition has noted their answer and has invited ArcelorMittal to engage directly with the coalition to address those concerns in a constructive and meaningful manner. Ternium has not responded to the questions posed by the Fair Steel Coalition related to the Ternium cases.

As the five case studies in this report illustrate, despite corporate reports and government policies wrapped in the still weak discourse of climate action, green transitions and human rights, the current course of action is destined to perpetuate environmental racism and reinforce deep asymmetries across race, gender, class and colonialist lines. This entails

the destruction of the territories, land, water and forests of indigenous and tribal peoples that takes place without remedy or respect for their self-determination to enable iron ore mines to expand. It similarly means the continued pollution of impoverished neighborhoods of largely black and brown people to the detriment of their health and other possible livelihoods, often with the acquiescence of regulators. In those places where it is most dangerous to defend land, self-determination and a healthy environment, it also involves corporations might be profiting from the fear and silence that festers in the wake of the murder and disappearances of community leaders and defenders, such as Higinio Trinidad de la Cruz, Antonio Díaz Valencia and Ricardo Lagunes Gasca, crimes that all too often remain in impunity.

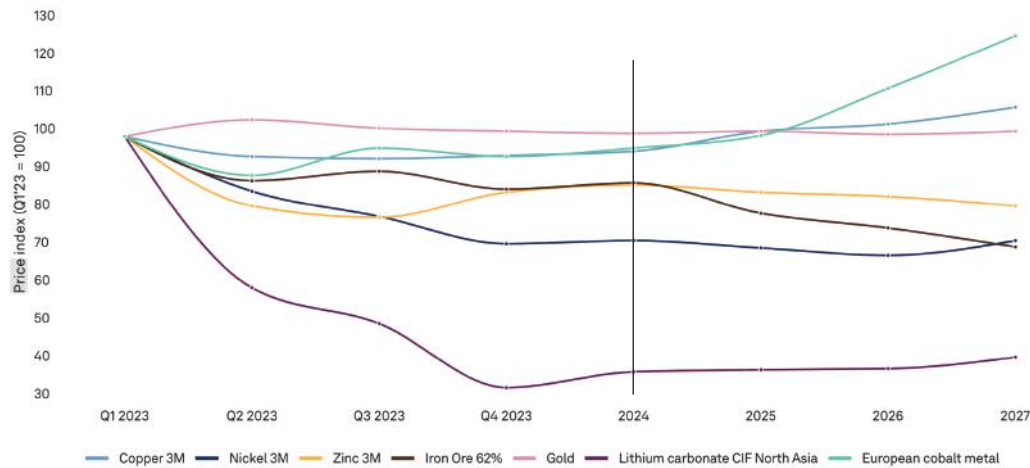


macro shooting of specimen natural rock - piece of hematite (iron ore)

<sup>2</sup> Paddison, L. & Choi, A. (2024, January 2). As climate chaos accelerates, which countries are polluting the most? Retrieved from: <https://edition.cnn.com/interactive/2023/12/us/countries-climate-change-emissions-cop28/>

<sup>3</sup> ArcelorMittal response on 25th April, 2024. Link [https://drive.google.com/file/d/1VakvbbU\\_BHTnp7vfN7VTetl8ch1tSV\\_G/view](https://drive.google.com/file/d/1VakvbbU_BHTnp7vfN7VTetl8ch1tSV_G/view)





Data compiled Oct. 19, 2023.

Sources: S&P Global Market Intelligence; S&P Global Commodity Insights; London Metal Exchange; London Bullion Metal Association  
© 2023 S&P Global.

The following case studies examine two steel plants and three iron ore projects belonging to two transnational steel firms, ArcelorMittal and Ternium. Both are domiciled in Luxembourg and Ternium's ultimate parent company is based in the Netherlands. ArcelorMittal's Executive Chairman, Lakshmi Mittal, ranks on Forbes' Real-Time Billionaires list as one of the richest men in the world together with Ternium's Chairman Paolo Rocca<sup>4</sup>. The size and duration of their plants and mines in each of the cases examined make them influential actors locally. Each company also has significant exposure to the global financial system through their shareholders and financiers, including a wide range of banks and investment firms. Their products ultimately supply well-known car companies like General Motors, Ford, BMW, and Volkswagen, as well as appliance manufacturers like Whirlpool.

Similar to other transnational corporations, both companies also have a complex corporate structure that transcends multiple borders, making it difficult to hold them to account for harms taking place at the project level. Efforts at social, environmental and climate justice are further frustrated by the prevalence of voluntary

rules and self-regulation schemes at the global level to guide the operations of multinational corporations rather than a binding framework. Corruption, corporate capture, and weakened institutions are further barriers. In this context, which enables the sorts of harms described in this report and frequently leaves them without redress or remedy, home states or states with significant commercial ties, financial investors and purchasing companies share responsibility to undertake due diligence concerning their decisions and to use their influence to help hold these corporations to account for the violations taking place.

In South Africa, ArcelorMittal's Vanderbijlpark steel plant belches out a daily dose of hydrogen sulphide well over what national air quality standards should permit<sup>5</sup>. For people living in the Vaal Triangle on the outskirts of Johannesburg, this is just one aspect of the legacy of apartheid-era policies and the continuation of decades of air, land and water pollution. Local communities organized as the Vaal Environmental Justice Alliance (VEJA) have fought for almost twenty years through the

<sup>4</sup> Forbes. (2024, April 15). The World's Real-Time Billionaires. Retrieved from: <https://www.forbes.com/real-time-billionaires>

<sup>5</sup> Mutsila, L. (2023, August 17). Eco-Activist Take Environment Minister and ArcelorMittal to Court As Vaal Residents Choke on Polluted Air. Retrieved from: [https://briefly.co.za/south-africa/166516-eco-activist-environment-minister-arcelormittal-court-vaal-residents-choke-polluted-air/#google\\_vignette](https://briefly.co.za/south-africa/166516-eco-activist-environment-minister-arcelormittal-court-vaal-residents-choke-polluted-air/#google_vignette)



courts and other actions, struggling in an uphill battle to seek accountability from the company and adequate measures to address the harms they live with daily. Their concerns include lack of full transparency around pollution data and implementation of the company's rehabilitation and remediation plans. VEJA and its allies achieved an order for remediation in 2018, but has yet to see the results they seek. ArcelorMittal South Africa is also the country's third worst greenhouse gas emitter<sup>6</sup>, but only recently announcing its climate action goal for South Africa in 2022. ArcelorMittal's target of a 25% reduction in South Africa falls notoriously short of 35% emissions reduction targets in Europe, while also being vague on the finance and other details to enable the local subsidiary to meet even its current commitments.

On the edge of Rio de Janeiro, Brazil, it is reported that Ternium's integrated steel plant emits more than 50% of the city's global greenhouse gases<sup>7</sup>. The steel plant was built in the district of Santa Cruz, one of the city's most impoverished and majority black and brown. Its construction and the contamination from the operation has put in jeopardy the traditional and more sustainable

activities of farming, fishing and shellfish gathering that residents have relied on. But the administrative and judicial complaints that communities have brought have so far failed to achieve accountability, despite evidence of significant harms. In stark contrast, the company enjoys a sector-wide exemption from the city's targets to address the climate crisis. Reports show the company emits over 60% of its total emissions in Santa Cruz, but its reduction target for Brazil is only 6.9% by 2030<sup>8</sup>. Furthermore, Ternium's decarbonization strategy largely centers on the Brazilian plan to replace coal with charcoal produced from monoculture plantations of crops such as eucalyptus, which is poised to have grave impacts on rural and indigenous peoples where they are established.

Sacrifice zones<sup>9</sup> are also expanding around the iron ore mines that these same two companies rely on to fuel their factories.

In Liberia, West Africa, ArcelorMittal currently seeks to triple its output from its iron ore mine. But with little information about what is being planned for their future and even before the expansion ramps up or is fully

6 Centre for Environmental Rights. (2019). Full Disclosure 5: The Truth about South African Banks' and Companies' Ability to Identify and Address Climate Risks. Retrieved from: <https://fulldisclosure.cer.org.za/2019/emitters/emitters-and-emissions>

7 Instituto PACS. (2022). Mudanças climáticas e siderurgia: Impactos locais e globais da Ternium Brasil. p.16. <https://biblioteca.pacs.org.br/publicacao/mudancas-climaticas-e-siderurgia-impactos-locais-e-globais-da-ternium-brasil/>

8 Ibid.

9 Ryan Juskus; Sacrifice Zones: A Genealogy and Analysis of an Environmental Justice Concept. *Environmental Humanities* 1 March 2023; 15 (1): 3–24. doi: <https://doi.org/10.1215/22011919-10216129>





Credits: Tsikini

permitted, tribal communities interviewed in Nimba, Bong and Grand Bassa Counties report that the mine is gradually destroying their land, forests, water and traditional livelihoods, slowly dispossessing them of their means of survival. The Western Range Project, as it is called, extracts iron ore from the Nimba Mountains, a biodiversity hotspot, to export to the company's steel plants in Europe. Researchers from Green Advocates International found evidence that the self-determination of tribal peoples living along the route from mine to rail to sea is being disregarded in the process of permitting and expansion.

Community members are distraught at the devastation they are experiencing and report being left out of opportunities for jobs and training. Elusive economic contributions that have been a source of complaints concerning this project for the last fifteen years are inadequate to address the extent of the harms, contributing to latent tensions.

In Mexico, both ArcelorMittal and Ternium have iron ore mines that largely supply their steel plants within the country. These areas have been subject to many of the same impacts as ArcelorMittal's mine in Liberia creating sacrifice zones from the economic, environmental and social impacts. The Peña Colorada and Aquila mines are both located in indigenous Nahua communities. Added to this, however, is how the companies operate in a context of extreme violence that is taking place with near complete impunity and targeting community leaders that challenge the mines' interests. In both cases, Tsikini and Global Rights Advocacy

reported that community leaders and environment defenders have been threatened, killed or disappeared when they have raised demands over these mines. As such, these sacrifice zones have also become zones of silence where speaking out or reporting on what is taking place can put one's life at risk. The two companies distance themselves from the violence, arguing that it is a local or Mexican phenomenon. The victims' families, Mexican organizations and their allies demand to find the disappeared and conduct exhaustive investigations that would consider all political and economic actors involved, requiring added pressure from international actors in home countries of these corporations and along the investment chain to pressure for urgently needed action and justice.

The problems demonstrated in these cases are systemic and persistent, contributing to the profits of powerful transnational corporations in the steel industry. They reflect a wider system guided by the interests of profit, not by people's demands for greater economic, social, environmental and climate justice. This is a call from Global South to rethink the so-called transition being designed for the steel sector in the Global North and to build solidarity with these struggles against environmental racism, for self-determination and justice, and for greater accountability from corporate actors benefiting from these harms.

# Map of the cases

**Aquila, Mexico**

Case of study V

Case of study IV

**Ayotitlán, México**

Case of study II

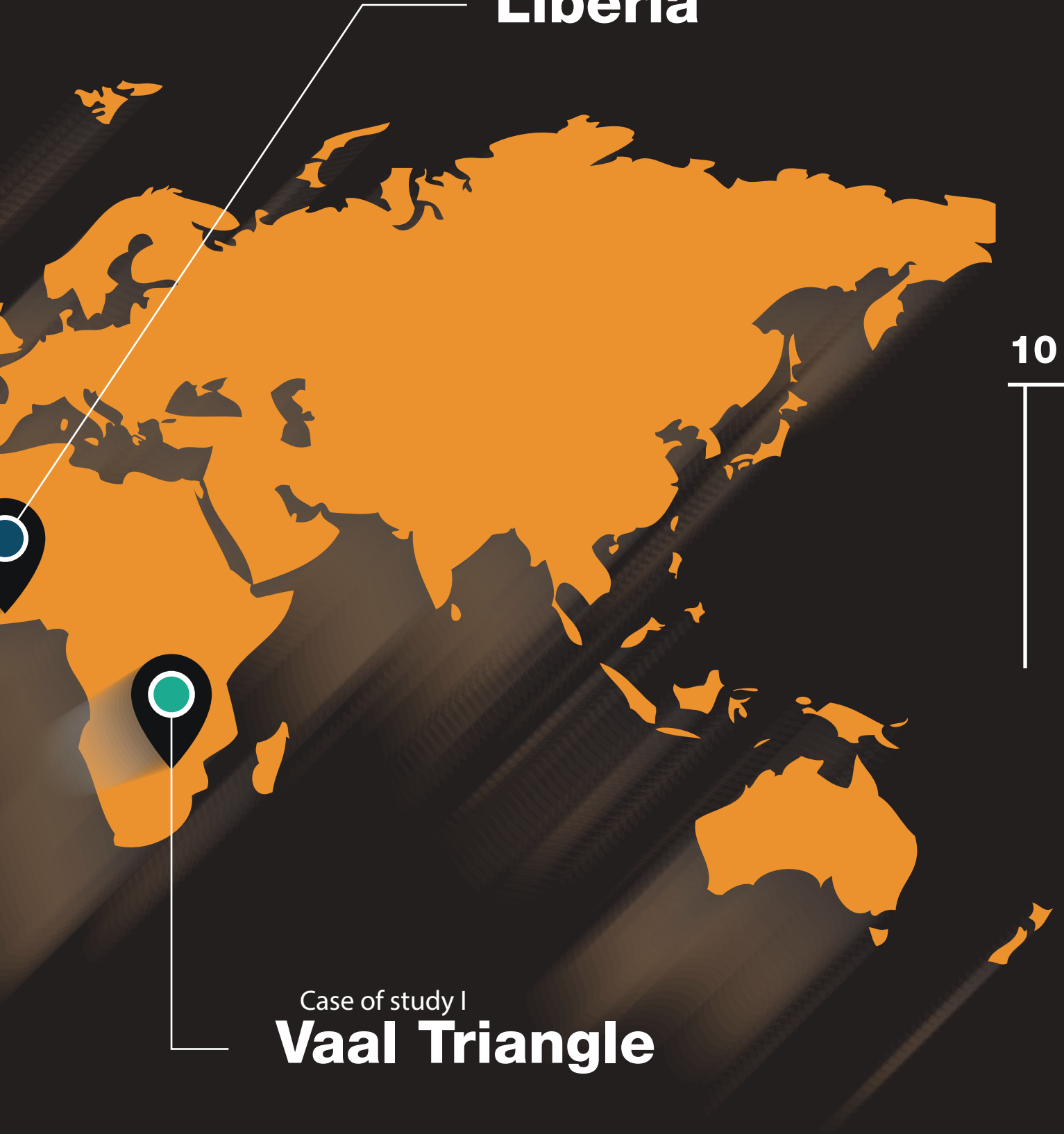
**Santa Cruz, Brazil**





Case of study III

# Liberia



10

Case of study I

# Vaal Triangle



Photo Credit: Daylin Paul

11

## Vaal Triangle

### Perpetuating Pollution and Environmental Racism

ArcelorMittal South Africa is the country's third worst greenhouse gas emitter<sup>10</sup> and its Vanderbijlpark steel plant belches out a daily dose of hydrogen sulphide well over what national air quality standards should permit<sup>11</sup>. For people living in the Vaal Triangle on the outskirts of Johannesburg, known as "one of the most polluted places on earth"<sup>12</sup>, this is the continuation of decades of air, land and water pollution for which they are demanding greater accountability from the company and adequate measures to rehabilitation and remediation of polluted sites address. Despite recently announcing its climate

action goal for South Africa in 2022, ArcelorMittal's target falls notoriously short of its aims in the global north and lacks a clear or ambitious plan<sup>13</sup>.

The settlements in the Vaal Triangle grew out of Apartheid-era industrial development planning. The triangle is formed by three "company towns" established to provide coal, electricity, water, steel, fuel from coal and chemicals for South Africa's industrial development<sup>14</sup>. This was accompanied by the planned development of surrounding townships, historically for black migrant workers and sometimes their families with

<sup>10</sup> Centre for Environmental Rights, (2019).

<sup>11</sup> Richards, N. (2023, August 17). Legal action looms for Barbara Creecy as ArcelorMittal pollutes Vaal Triangle. Retrieved from: <https://www.ewn.co.za/legal-action-looms-for-barbara-creecy-as-arcelormittal-pollutes-vaal-triangle/>

<sup>12</sup> Sguazzin, A. (2024, March 2). What it's like to live in the most polluted place on Earth. Retrieved from: <https://www.japantimes.co.jp/environment/2024/03/02/south-africa-most-polluted-place/>

<sup>13</sup> Green Building Africa. (2022, May 19). ArcelorMittal South Africa is the Country's Third Worst Greenhouse Gas Emitter. Retrieved from: <https://www.greenbuildingafrica.co.za/arcelormittal-south-africa-is-the-countrys-third-worst-greenhouse-gas-emitter/>

<sup>14</sup> Munnik, A. V. (2012). Discursive power and environmental justice in the new South Africa: the Steel Valley struggle against pollution (1996-2006). p.136. [Doctoral Dissertation, University of the Witwatersrand]. <http://hdl.handle.net/10539/13005>



little land to farm and costly services inadequate to meet people's needs. The racial divides persist and are part of the context in which extensive industrial pollution has been justified then and now<sup>15</sup>.

The parastatal company ISCOR (Iron and Steel Corporation) operated the steel plant for the first fifty years, until it was taken over by Lakshmi Mittal from 2001 to 2004<sup>16</sup>. The immediate surrounding area, known as Steel Valley, was initially populated by white working-class small holder farmers and landowners, until black people could buy land here post-Apartheid. The steel plant owned by ArcelorMittal South Africa (AMSA) was originally built on a hill so that the pollution would flow away from the area<sup>17</sup>. Steel Valley is now vacant land as first ISCOR and then ArcelorMittal bought out landowners presumably to avoid responsibility for ongoing pollution<sup>18</sup>. As Mittal sought to consolidate control over ISCOR, trade unions opposed the merger fearing job loss, given cuts that brought employment to 12,000 from a high of 44,000 in 1980<sup>19</sup>. Today, another 3,500 jobs are on the line with the potential closure of its Vereeniging and Newcastle works<sup>20</sup>.

Emerging around the same time as ArcelorMittal South Africa (AMSA) took over, the Vaal Environmental Justice Alliance (VEJA) brings together organizations and communities living in the Vaal Triangle to battle the environmental injustice of air, water and land pollution, while supporting grassroots education and organizing. Together with its allies, VEJA's persistent struggles for transparency and accountability reveal the obstinance and corporate



ArcelorMittal Protest Photo Credit: Daylin Paul

- 15 James, A. (2023). A story of the Vaal Environmental Justice Alliance (V.E.J.A.).
- 16 CEE Bankwatch Network et al. (2008, May). In the wake of ArcelorMittal: The global steel giant's local impacts. p.24. [https://bankwatch.org/wp-content/uploads/2008/05/mittal\\_local\\_impacts.pdf](https://bankwatch.org/wp-content/uploads/2008/05/mittal_local_impacts.pdf)
- 17 James, A. (2023). p 21.
- 18 James, A. (2023). p.12. Also see CEE Bankwatch Network et al. (2008, May).
- 19 ISCOR had cut jobs from a high of 44,000 in 1980 to 12,000 in 2004 at which time Lakshmi Mittal's company LNM held 47.23% of ISCOR's stock. In October 2004, LNM applied to the South African competition bureau to become a 50% shareholder, a decision which two trade unions opposed for fear of more job cuts, given Mittal's reputation. Cock, J. & Munnick, V. (2006). Throwing Stones at a Giant: an account of the Steel Valley struggle against pollution from Vanderbijlpark Steel Works. p.7. <https://ekoforumzenica.ba/pdf/Throwing%20Stones%20at%20a%20Giant.pdf>
- 20 Xulu, K. (2023, November 29). Closure of steel operations a devastating blow, as 3500 jobs at risk. Retrieved from: <https://mg.co.za/business/2023-11-29-closure-of-steel-operations-a-devastating-blow-as-3500-jobs-at-risk/> Neethling, B. (2023, December 1). ArcelorMittal job cuts 'only the start'. Retrieved from: <https://dailyinvestor.com/south-africa/39359/arcelormittal-job-cuts-only-the-start/>

privilege with which AMSA has managed business as the top steel producer in Sub Saharan Africa.

### The Master Plan and Negotiated Non-Compliance

In the Vaal Triangle, the intertwining crisis of climate, contamination, health and water create a constant struggle for survival, as observed by a team of VEJA community researchers studying local pollution impacts<sup>21</sup>.

The air pollution from AMSA's smokestacks is the most visible evidence of the toxic waste regularly affecting local residents, with documented severe impacts to the environment around Vanderbijlpark<sup>22</sup>. In order to demonstrate to authorities what they know from experience, VEJA fought for years to gain access to the company's Environmental Master Plan and now carries on the struggle for rehabilitation, remediation and mitigation measures.



Air Pollution - James Oatway

After apartheid ended, there was a period of hope when people thought the new democratic government and progressive environmental legislation might work with surrounding communities to hold ISCOR to account for decades of pollution and health issues that families in the Steel Valley were reporting, such as respiratory trouble, skin irritation, kidney and liver problems, strokes, diarrhea, gastrointestinal issues, cancer, and infertility<sup>23</sup>. Instead, however, the Department of Water Affairs (DWA) negotiated a Master Plan with the company to identify environmental management improvements. This closed the door on community involvement in addressing pollution. The result was effectively “negotiated non-compliance” as small changes were made in accord with tighter legislation and some improved technology<sup>24</sup>.

The document was originally kept confidential, and it took VEJA and their allies a full decade to fight up to the top courts in the country and gain access to the Master Plan. In 2014, the Supreme Court of Appeal ordered AMSA to make the Master Plan public<sup>25</sup>. The plan includes specialist reports on pollution levels and environmental impacts, intended to inform a 20-year environmental management plan to “alleviate pollution and rehabilitate its operation sites<sup>26</sup>”. AMSA says the Master Plan is now out of date<sup>27</sup>. Nonetheless, the plan confirmed what residents had long known that the plant had been causing unacceptable risks to and impacts on human health and the environment in areas

<sup>21</sup> Maloka, K. et al. (Forthcoming). Report on VEJA local pollution mapping: Capacity building and research.

<sup>22</sup> Tsoabi, M. (Forthcoming) VEJA local pollution mapping: Community researcher report 1. Also see Sguazzin, A. (2024, March 2).

<sup>23</sup> James, A. (2023). p.6.

<sup>24</sup> Munnik, A. V. (2012).

<sup>25</sup> Centre for Environmental Rights. (2014, November 26). Victory for Vaal communities as the Supreme Court of Appeal orders ArcelorMittal to release environmental records. Retrieved from: <https://cer.org.za/news/victory-for-the-vaal-communities-as-the-supreme-court-of-appeal-orders-arcelormittal-to-release-environmental-records>

<sup>26</sup> Centre for Environmental Rights. (2018, September 28). Notice in Terms of Section 28(12) of the National Environmental Management Act, 1998, in Relation To Arcelormittal South Africa' S Operations At Vanderbijlpark. Also see James, A. (2023). p 14-15.

<sup>27</sup> James, A. (2023). p.19.



beyond its perimeter, including groundwater and soil contamination<sup>28</sup>.

The years following the Master Plan's release included relentless investigation to demonstrate that devastating pollution continues and that the company should be held to account. Experts who reviewed the plan, such as Dr. Mark Chernaik, also found issues not adequately examined. For example, Chernaik noted that "cadmium toxicity should have been, but was not, a main focus of the investigation of groundwater contamination in the vicinity of AMSA<sup>29</sup>." Chronic exposure to very low levels

of cadmium can cause renal dysfunction, including kidney failure<sup>30</sup>.

A groundwater quality assessment also confirmed contamination and related risks to human health, including to identify measures AMSA could implement to minimize further impacts and reduce risks<sup>31</sup>.

However, the apparently cozy relationship between authorities and the company seems to have stood in the way of addressing such harms. Together, DWA and AMSA chose scientific methodologies for

<sup>28</sup> Centre for Environmental Rights. (2016). Full Disclosure 2016: ArcelorMittal South Africa Limited, Summary of findings and company response – 2015. Retrieved from: <https://fulldisclosure.cer.org.za/2016/company/arcelormittal-south-africa-limited?summary>

<sup>29</sup> Ibid.

<sup>30</sup> Ibid.

<sup>31</sup> Reddick, J. (2017, April). An Assessment of the Impact of ArcelorMittal Vanderbijlpark Works on Groundwater Quality.





James Oatway

pollution monitoring reportedly inadequate to properly detect contamination and then VEJA observed that they acted slowly on what they did find. Despite this, VEJA and their partners achieved some victories<sup>32</sup>, including a 2018 remediation order from the Department of Environmental Affairs ordering AMSA to clean up contaminated land within its precinct, including measures “to address current and potential future risks to groundwater<sup>33</sup>”. VEJA and the Centre for Environmental Rights (CER) continue to monitor compliance with the remediation order and remain concerned about slow and incremental progress, as well as insufficient allocation of capital for remediation<sup>34</sup>.

### Permitted Air Pollution

The Vaal Triangle has been declared an air quality management and pollution control priority area since 2006<sup>35</sup>, with little improvement that VEJA and local residents have been able to observe<sup>36</sup>. Residents have had to contend with hazardous levels of air pollution, including hydrogen sulphide ( $H_2S$ )<sup>37</sup>. Smelling of rotten eggs, the South African press reports that “Even at low concentrations, hydrogen sulphide can cause headaches, eye and lung irritation, unconsciousness, neurological, metabolic, and reproductive defects, and even death<sup>38</sup>.” Nonetheless, reproducing decades of discrimination against residents in the Vaal

<sup>32</sup> James, A. (2023). p.20.

<sup>33</sup> Department of Environmental Affairs. (2018, January 11). Remediation Order Issued to ArcelorMittal South Africa Limited. <https://cer.org.za/wp-content/uploads/2019/08/Remediation-Order.pdf>

<sup>34</sup> Communications with the Centre for Environmental Rights (CER). (2024, April 11). CER reviewed company documents and found a single report about their remediation progress dated 2020: ArcelorMittal South Africa. (2020, March 12). Remediation Order: Reporting on Progress in terms of the Remediation Order for ArcelorMittal, South Africa Limited Issued in terms of section 38(2) of the National Environmental Management: Water Act, 2008(Act No 59 of 2008). CER did not find other reports, despite these reportedly being due annually, with the caveat that AMSA's 2023 ESG report states that remediation is ongoing without any further detail.

<sup>35</sup> Department of Environmental Affairs and Tourism. (2006, April 21). Declaration of the Vaal Triangle Air-Shed Priority Area in terms of section 18(1) of the National Environmental Management: Air Quality Act 2004, (Act No. 39 of 2004). [https://www.gov.za/sites/default/files/gcis\\_document/201409/28732b.pdf](https://www.gov.za/sites/default/files/gcis_document/201409/28732b.pdf)

<sup>36</sup> Centre for Environmental Rights. (2017, August 24). Letter to Michael Nemangaya, Air Quality Officer, Sedibeng District Municipality, concerning Air Quality Concerns within the Sedibeng District Municipality. Also see Sguazzin, A. (2024, March 2).

<sup>37</sup> In June 2020, AMSA was fined R3.64 million (\$200,000) for excess hydrogen sulfide emissions during 2016. See: Bulbulia, B. (2020, June 10). AMSA agrees to pay R3.64m fine for exceeding hydrogen sulfide limits. Retrieved from <https://www.engineeringnews.co.za/print-version/amsa-agrees-to-pay-r364m-fine-for-exceeding-hydrogen-sulphide-limits-2020-06-10>; Also see ELAW. (2020, June 25). Holding Polluters Accountable in South Africa. Retrieved from <https://elaw.org/holding-polluters-accountable-south-africa>

<sup>38</sup> Richards, N. (2023, August, 17).

Triangle, national regulators continue approving emissions licenses for AMSA that allow it to contaminate air according to standards "three to seven times weaker than the 2015 emission standards<sup>39</sup>".

In its 2014 decision concerning the Master Plan, the Supreme Court observed, "With regard to air quality, concentrations of sulphur dioxide and fine particulates were found to be within the current South African standards and/or guidelines, but with little margin for safety<sup>40</sup>." In the south-western part of the consolidated plant area, the sulphur dioxide concentrations were found to "exceed" safety limits at times, while "heavy deposition rates" of dust were recorded<sup>41</sup>." A 2016 report from the World Health Organization, "showed that communities in the Vaal Triangle were breathing in toxic air from Eskom's Lethabo power station, ArcelorMittal's steelworks and Sasol<sup>42</sup>." In 2020, the company was fined 3.6 million South African rand (US\$219,658) for excess hydrogen sulfide emissions during 2016<sup>43</sup>. Furthermore, litigation that VEJA filed in collaboration with CER states, "Court papers note that AMSA has been responsible for H<sub>2</sub>S excess for decades and is making no progress... abatement equipment was installed in 2010 but failed after a few months and in 2018 is still not operational<sup>44</sup>." According to

groundWork, AMSA acknowledged in 2022 that the equipment was not yet working<sup>45</sup>.

While substantial gaps exist in the health studies, one longitudinal study of 10-year old children in the Vaal Triangle published in 2014 found an increase of 58% in doctor-diagnosed asthma from a prevalence of 12.41% in 1990 compared to 19.26% in 2010<sup>46</sup>. According to a Bloomberg Green analysis, Vereeniging, one of the three municipalities that compose the Vaal Triangle, has the highest density of PM<sub>2.5</sub> particulate matter on earth, about twenty times more than Paris<sup>47</sup>. In another study, the average concentration of PM<sub>2.5</sub> recorded in Vanderbijlpark during the winter was 50.7 µg/m<sup>3</sup>, 10 times the World Health Organization's recommended levels for annual exposure<sup>48</sup>.

James Oatway

39 Mutsila, L. (2023, August 17).

40 The Supreme Court of Appeal of South Africa. (2015, November 26). Case No: 69/2014. p.11. <https://cer.org.za/wp-content/uploads/2012/12/VEJA-v-AMSA-SCA-Judgment.pdf>

41 Ibid.

42 Centre for Environmental Rights. (2016). Full Disclosure 2016: ArcelorMittal South Africa Limited, Environmental non-compliances reported by affected communities, the media, & NGOs, 2016 update. Retrieved from <https://fulldisclosure.cer.org.za/2016/company/arcelormittal-south-africa-limited?impacts>

43 Reuters. (2020, June 10). ArcelorMittal South Africa fined over hydrogen sulfide emissions. Retrieved from <https://www.reuters.com/article/idUSKBN23H1FR/>

44 James, A. (2023). p.17. Also see groundWork. (2023, August 15). The Minister of Forestry, Fisheries and the Environment and National Air Quality Officer Face Legal Action Over Alleged Permitting of Excessive Hydrogen Sulfide Pollution by Arcelor Mittal South Africa. Retrieved from <https://groundwork.org.za/the-minister-of-forestry-fisheries-and-the-environment-and-national-air-quality-officer-face-legal-action-over-arcelor-mittal-pollution/>

45 Ibid.

46 Oosthuizen, M. A., Mundackal, A.J. & Wright, C.Y. (2014, June). The prevalence of asthma among children in South Africa is increasing – is the need for medication increasing as well? A case study in the Vaal Triangle. *Clean Air Journal*, 24(1), 28-30. <https://cleanairjournal.org.za/article/view/7050/8437>

47 Sguazzin, A. (2024, March 2).

48 Matandirotya, N.R., Dangare, T., Matandirotya, E. & Mahed, G. (2023, March). Characterisation of ambient air quality over two urban sites on the South African Highveld. *Scientific African*, 19. <https://doi.org/10.1016/j.sciaf.2022.e01530>. Particulate Matter of 2.5 µm (PM<sub>2.5</sub>), in particular, is critical because of its high capacity to penetrate the respiratory system, generating greater risks to human health. In 2021, the World Health Organization modified its recommended Air Quality Guidelines for PM<sub>2.5</sub> to 5 µg/m<sup>3</sup> average annual concentrations and that 24-hour average exposures should not exceed 15 µg/m<sup>3</sup> for more than 3-4 days per year. See World Health Organization (WHO). (2021, September). WHO Air Quality Guidelines. Retrieved from [https://www.c40knowledgehub.org/s/article/WHO-Air-Quality-Guidelines?language=en\\_US](https://www.c40knowledgehub.org/s/article/WHO-Air-Quality-Guidelines?language=en_US)



The problem lies with both AMSA and South African authorities. While residents face serious health hazards, VEJA's community researcher team observe that authorities seem reluctant to stand in the way of company profits, despite the plant being out of compliance with the Minimum Emission Standards. They state, "AMSA must come in hand with the community so that they can work together to improve the solution<sup>49</sup>." Nonetheless, since AMSA took over, VEJA notes that it has demonstrated little interest in community engagement<sup>50</sup> and legally mandated land, water and air monitoring committees have not been set up, despite the community alliance's insistence<sup>51</sup>.

As a result, once again, VEJA and its allies, groundWork and the Centre for Environmental Rights (CER) have taken their fight to the courts. In August 2023, they filed a suit against the Minister of Forestry, Fisheries and the Environment and the National Air Quality Officer (NAQO) over decisions granting AMSA permission to postpone compliance with minimum emission standards intended to protect human health<sup>52</sup>. The case is still in early stages.

## AMSA's Unambitious and Discriminatory Climate Action Plan

In 2019, CER undertook a review of how the ten corporations responsible for 61% of South Africa's greenhouse gas emissions have been reporting on their climate risks<sup>53</sup>. This study included AMSA, South Africa's third worst greenhouse gas emitter, responsible for 3% of greenhouse gas emissions in the country. AMSA came out on bottom in their review<sup>54</sup>. It did not disclose its climate-related risks to shareholders through its annual reports, nor did it have a strategy in place to address these risks<sup>55</sup>.

It took until 2022 for the company to announce its first climate action goal of 25% reduction in greenhouse gas emissions by 2030 for South Africa<sup>56</sup>. Nonetheless, it is unclear how exactly the company plans to achieve this or to explain why it is unable to act at a pace and scale sufficient enough to reduce carbon emissions in tandem with its commitments for a 35% reduction in emissions in Europe<sup>57</sup>.



Boat sailing in front of Ternium

<sup>49</sup> Mghuni, M.G. (Forthcoming). VEJA local pollution mapping: Community researcher report 1.

<sup>50</sup> Sebidi, J.K. (Forthcoming). VEJA local pollution mapping: Community researcher report 1.

<sup>51</sup> Communication with VEJA, April 4, 2024.

<sup>52</sup> GroundWork. (2023, August 15).

<sup>53</sup> Centre for Environmental Rights. (2019) Full Disclosure 5: The Truth about South African Banks' and Companies' Ability to Identify and Address Climate Risks, 2019. <https://fulldisclosure.cer.org.za/2019/>

<sup>54</sup> Centre for Environmental Rights. (2019). Full Disclosure 5: ArcelorMittal South Africa (AMSA). Retrieved from <https://fulldisclosure.cer.org.za/2019/companies/arcelormittal-south-africa-amsa>

<sup>55</sup> Centre for Environmental Rights. (2021, May 20). Environmental justice activists demand urgent climate action at AMSA's AGM. Retrieved from <https://cer.org.za/news/environmental-justice-activists-demand-urgent-climate-action-at-amsas-agm>

<sup>56</sup> Groundwork (2023, May 25). Community Protest at Arcelor Mittal South Africa Annual General Meeting. Retrieved from <https://groundwork.org.za/community-protest-at-arcelormittal-south-africa-annual-general-meeting/>

<sup>57</sup> Green Building Africa. (2022, May 19).

## Recommendations

Considering the documented impacts on the environment and human rights, we urge ArcelorMittal to

- 1** Take responsibility for ArcelorMittal South Africa's (AMSA's) social, environmental human rights impacts, and acknowledge the prominent role of AMSA as a subsidiary with access to high-quality iron ore reserves, some of the world's best solar and wind resources and immense potential for exporting green primary iron and green steel to Europe as well as the expansion of the continental market.
- 2** Ensure adequate and effective remedies for fenceline communities, and for interested and affected parties for environmental, social and human rights impacts, through a group-wide grievance mechanism.
- 3** Rapidly decarbonise operations in South Africa by developing the industry-led Just Transition Plan for AMSA which ensures that workers' interests are protected. Recognize AMSA's limited financial capacity to achieve decarbonization by itself and acknowledge that significant capital expenditure is required in the short term to avoid future financial, environmental and reputational risks. The Group must then provide not only technological support and knowledge sharing but also arrange for the necessary capital injections and grant-based financial aid for AMSA. Decarbonization plans should not include nascent technologies such as carbon capture and sequestration which are currently unable to provide practical and scalable solutions.
- 4** Ensure full access to information about air, water and soil pollution and about compliance with environmental laws, engaging with AMSA and reporting regularly to fenceline communities. the failure to provide access to information or make information publicly available, as well as the failure to meaningfully consult with fenceline communities on issues which affect them.
- 5** Conduct, fund and publish an independent audit on compliance with environmental law, including the Minimum Emission Standards, ensuring that AMSA takes all necessary steps towards compliance.
- 6** Acknowledge and remedy all documented impacts of the South African subsidiary such as air, soil and water pollution over the decades. Provide the required capital for AMSA to conduct immediate rehabilitation and remediation of polluted sites, and establish a follow-up process. Engage with AMSA on a regular basis to ensure the implementation of rehabilitation plans, which should not only include all local environmental authorities' requirements but also meet global best practices that are consistent throughout the group and the broader steel sector.





Boat sailing in front of Ternium

19

## Santa Cruz

### Greenwashing Rio de Janeiro's Top Greenhouse Gas Emitter

Ternium's integrated steel plant in Santa Cruz, Rio de Janeiro emits more than 50% of the city's global greenhouse gases<sup>58</sup>. The neighborhood has one of the lowest human development indices in the city. The impacts of the plant put the health and more sustainable traditional activities of its largely impoverished residents, a majority people of color, in jeopardy. Enjoying a sector-wide exemption from the city's targets to address the climate crisis, Ternium's decarbonization strategy also falls short and is poised to perpetuate environmental racism without an ambitious rethnium's steel complex is located

in the west of Rio de Janeiro in Santa Cruz neighborhood on João XXIII Avenue, about 50 kilometers from the beaches of the South Zone and Christ the Redeemer. Despite this being deemed an Industrial District, the facilities are side by side with people's homes. This historically agricultural area has been subject to zoning changes and public incentives to industrialize since the 1960s<sup>59</sup>. Combined with population growth, urbanization of Rio de Janeiro's periphery in recent decades, and underinvestment in urban infrastructure, the neighborhood has reached its social and environmental limits<sup>60</sup>.

<sup>58</sup> Instituto PACS. (2022). Mudanças climáticas e siderurgia: Impactos locais e globais da Ternium Brasil. p.16. <https://biblioteca.pacs.org.br/publicacao/mudancas-climaticas-e-siderurgia-impactos-locais-e-globais-da-ternium-brasil/>

<sup>59</sup> Guimarães, V. T. (2011). O licenciamento ambiental prévio e a localização dos grandes empreendimentos: o caso da TKCSA em Santa Cruz, Rio de Janeiro. [Master's thesis, Federal University of Rio de Janeiro, Institute for Urban and Regional Research and Planning]. Fridman, F. (2017). Donos do Rio em nome do Rei: uma história fundiária da cidade do Rio de Janeiro (3rd ed.). Garamond. Silva, V.R.J. (2019). O bairro de Santa Cruz-RJ no contexto da metropolização: a importância do conceito de escala. In Santos, F. (Ed.), Geografia no século XXI. V.5. (1st ed.) (pp. 137-147). Poisson.

Industrialization has deepened inequalities and the destruction of livelihoods reliant on a healthy environment.

According to the national census<sup>61</sup>, Santa Cruz has almost 250,000 inhabitants, mostly black and brown (66%), predominantly of working age (56% between 20 to 59 years) and female (52%). The Human Development Index for Santa Cruz (0.742) reveals high levels of social inequality, ranking 119 out of 126 neighborhoods, with even worse indicators for João XXIII Avenue (0.666) where the steel mill is located. Hidden within these numbers are diverse ways of life at risk from industrial activities. This is the case of some 8,000 artisanal fishermen<sup>62</sup>, small-scale farmers, remnants of quilombo communities<sup>63</sup>, as well as shellfish gatherers and others who depend on artisanal activities that have not been fully documented<sup>64</sup>. Notably, these activities at risk of disappearing are based on a more harmonious relationship with the environment and the potential to neutralize emissions. High levels of violence, above all by paramilitary forces active in the region, are a major impediment for people to organize in defense of the collective good.

Located in the Santa Cruz Industrial District, Ternium's steel plant consists of a private port, a thermoelectric power plant and an integrated steel plant, authorized to produce up to 5 million tons of steel plates per year. The largest such plant in Brazil, it was originally built and operated by a joint venture Companhia Siderúrgica do Atlântico owned by German



Boats stopped on the riverbank - Anette Alencar

<sup>60</sup> Cidade do Rio de Janeiro (2021). Plano Director da Cidade Do Rio De Janeiro. <https://planodiretor-pcrj.hub.arcgis.com/pages/revisao-plano>

<sup>61</sup> Data.Rio (2024, March 26). Censo demográfico 2022 - População e domicílios por Bairros, RAs e APs. Retrieved from <https://www.data.rio/apps/0486a2d8fdb241d68395c24e662c48bb/explore>

<sup>62</sup> Carvalho, L.N. (2011, May). Análise de conflitos socioambientais: siderúrgica CSA e comunidades no entorno da Baía de Sepetiba. XIV Encontro Nacional da ANPUR 2011, Rio de Janeiro, Brazil. <https://anpur.org.br/site/anais/ena14/ARQUIVOS/GT7-1304-1097-20110107021243.pdf>. Oliveira et al. (2011). Racismo ambiental no Rio de Janeiro: o caso da Companhia Siderúrgica do Atlântico no bairro de Santa Cruz/RJ. 35º Encontro Anual da Anpocs, 2011, Caxambu/MG. <https://biblioteca.sophia.com.br/terminal/9666/Busca/Download?codigoArquivo=5809&tipoMidia=0>

<sup>63</sup> Quilombos are traditional communities recognized as remnants of the enslaved black population in Brazil.

<sup>64</sup> Instituto PACS (2021). Mulheres atingidas: territórios atravessados por megaprojetos. <http://biblioteca.pacs.org.br/wp-content/uploads/2021/03/MULHERES-ATINGIDAS.pdf>





Fisherman weaving fishing net - Anette Alencar

company ThyssenKrupp AG (72.6%) and Brazilian firm Vale S.A. (27.4%). With support from all three levels of government, construction began in 2006 and it went into operation in 2010. Ternium took over in 2017.

### Loss of traditional livelihoods and negative health indicators in Santa Cruz

Considered at the time of its construction an achievement of Brazilian development policy, the steel plant has had severe socio-environmental impacts. The installation of the industrial park resulted in the pollution of surrounding rivers<sup>65</sup> and Sepetiba Bay, rerouting of the region's canals and the deforestation of 4 hectares of mangrove

forest<sup>66</sup>, vegetation with a high capacity to capture atmospheric carbon. Based on information that the PACS Institute obtained from the State Environmental Institute (INEA by its initials in Portuguese), the plant's maximum authorized annual water consumption by 2021 was equivalent to the annual consumption of 10.2 to 14.4 million people<sup>67</sup>. The population of the Metropolitan Area of Rio de Janeiro was 13.6 million as of 2022. This is stiff competition for residents in Santa Cruz who have historically had scarce and inadequate access to clean water and sewage services.

In addition, construction of a submerged sill<sup>68</sup> led to fish die-off and a change in water temperature<sup>69</sup>, which displaced artisanal fishing. Furthermore, a phenomenon called "silver rain" occurred in 2010 on the first of at least three occasions<sup>70</sup>, when shiny graphite soot would periodically fall leaving a thick layer of dust over the neighborhood<sup>71</sup>. The company was fined at least twice<sup>72</sup> and eventually reached a Conduct Adjustment Agreement (TAC by its initials in Portuguese) over mitigation measures with the Rio de Janeiro State Environment Institute to address errors in construction and operation. The TAC ended and an environmental license was granted in 2016 before Ternium took over, although it inherited around 250 lawsuits brought by fishing associations and local residents<sup>73</sup>. The suits from fishing associations

<sup>65</sup> The river that borders the steel mill is the Guandu, which has three main channels: the São Francisco, the São Fernando and the Guandu.

<sup>66</sup> Communications with PACS Institute, April 15, 2024.

<sup>67</sup> D'Andrea, P. & Xavier, B. (2019, March 19). A sede e a vontade de beber da siderurgia. Retrieved from <https://diplomatie.org.br/ternium-a-sede-da-siderurgia/> Based on Ternium's water permits as of 2021, PACS calculates the plant's maximum authorized annual water consumption at 577,459,200 m<sup>3</sup>. Using the UN's average water consumption per day per person of 110 liters, this would be equivalent to the annual consumption of 14.4 million people. Using the National Sanitation Information System's average of 154 liters, it would be equivalent to that of 10.3 million people.

<sup>68</sup> The submerged sill, known locally as a dam, was built at a time when the canal in which the company collects water to cool the blast furnaces had narrowed, returning a lot of salt water to the canal that is harmful to machinery. The sill protrudes about 2.8 km into the sea and restricts the movement of fishing boats in the bay. It was partially removed recently.

<sup>69</sup> Communications with PACS Institute, April 15, 2024. PACS explains that there are various water uses that could contribute to this change in temperature, including the plant's use of water to cool its machinery, among others.

<sup>70</sup> Instituto Políticas Alternativas para o Cone Sul (PACS) (2021, August 10). Chuva de Prata [Video]. Facebook. <https://www.facebook.com/watch/?v=2795724670725559>

<sup>71</sup> Flörke, S. (2012, October 19). Metal Rain. Retrieved from <https://www.dw.com/en/german-steel-plant-pumps-graphite-into-rios-air/a-16387445>

<sup>72</sup> The State Environmental Institute (INEA) issued at least two fines for the first and second incidents of silver rain from 2010 to 2012: COFISEAI/00133908 and COFISEAI/00135558

<sup>73</sup> Instituto PACS. (2021).



were all defeated, except for one pending a final decision. Lawsuits from residents remain ongoing and are at the stage of exchanging evidence.

In its 2022 Sustainability Report<sup>74</sup>, Ternium reports using optimized water management, including establishing a Water Resources Committee to assess water consumption. The company also vaguely stated in 2021 that it continues to strengthen its effluent treatment and control system<sup>75</sup>. However, consumption data is difficult to access and there is little transparency about the measurement methodology. Moreover, Ternium's operation still consumes a lot of water, and does not make clear that these efforts are not voluntary, but rather an obligation of its water permit and environmental license. Even so, fishers continue to raise complaints of stains on the water downstream of where Ternium discharges water<sup>76</sup>.

Since the plant went into operation, local residents have observed an increase in respiratory, heart, skin, cancer and mental health ailments<sup>77</sup>. In 2016, the Popular Health Surveillance Project undertaken between FioCruz, Instituto PACS and Justiça nos Trilhos trained a group of young people to monitor air quality in Santa Cruz using low-cost equipment, with a focus on analyzing the



negative effects on health and the environment<sup>78</sup>. Between the first and second round of sampling, the found increased levels of PM<sub>2.5</sub>, including levels exceeding the daily average of 25 µg/m<sup>3</sup> recommended by the World Health Organization at the time<sup>79</sup>. It is noteworthy that these values were particularly high late at night, which the research team interpreted as a strategy to avoid drawing resident's or regulator's attention. This group of young people formed that became the Martha Trindade Collective, which began a second study in 2023 that is ongoing. The Collective has also found that women face high exposure to toxins in connection with housework and suffer mental health impacts from the trauma of losing their traditional activities and from

<sup>74</sup> Ternium S.A. (2023, July). Sustainability Report 2022. p. 56.

[https://s2.q4cdn.com/156255844/files/doc\\_financials/annual/2022/Sustainability-Report-2022.pdf](https://s2.q4cdn.com/156255844/files/doc_financials/annual/2022/Sustainability-Report-2022.pdf)

<sup>75</sup> Ternium S.A. (2022, June). Sustainability Report 2021. p. 47.

[https://s2.q4cdn.com/156255844/files/doc\\_financials/annual/2021/Sustainability-Report-2021.pdf](https://s2.q4cdn.com/156255844/files/doc_financials/annual/2021/Sustainability-Report-2021.pdf)

<sup>76</sup> PACS Institute has learned of these complaints through Instagram posts. Information about resulting fines or conditions on its license are not publicly available. Also see Torres, L. (2023, January 2016). Police carry out an operation at a steel mill suspected of dumping mineral coal in Sepetiba Bay, in the West Zona. Retrieved from <https://g1.globo.com/rj/rio-de-janeiro/noticia/2023/01/16/policia-faz-operacao-em-siderurgica-suspeita-de-lancar-carvao-mineral-na-baia-de-sepetiba-na-zona-oeste.ghml>

<sup>77</sup> Moura, L. & Rodrigues, I. (2018, November 21). A realidade por trás da Ternium Brasil. Retrieved from

<https://diplomatie.org.br/a-realidade-por-tras-da-ternium-brasil/>

<sup>78</sup> Queiroz, A.L., Praça, M. & Bitencourt, Y. (2022, November). Steel Industry's Legacies on the Outskirts of Rio de Janeiro and White Brazilian Capital-State Alliances: A Feminist Approach. In Paul Amar et al. (Eds.), *The Tropical Silk Road: The Future of China in South America* (pp 349-362). Stanford University Press. <https://www.sup.org/books/title/?id=34134>

<sup>79</sup> Instituto PACS, Rede Justiça nos Trilhos & Fundação Oswaldo Cruz. (2017, September). *Relatoria Final: Vigilância Popular em Saúde e Ambiente em áreas próximas de Complexos Siderúrgicos*.

the additional burden of care when they or family members fall ill<sup>80</sup>. The global COVID-19 pandemic also hit hard in Santa Cruz where the fatality rate was comparatively high at 28.7%<sup>81</sup>. While causality is difficult to prove, a recent study demonstrates a positive relationship between long-term exposure to air pollution and greater vulnerability and mortality due to COVID-19<sup>82</sup>.

In its 2022 Sustainability Report<sup>83</sup>, Ternium reports having adopted innovative technology for monitoring air quality in real time. However, this is another case where the company presents an obligation to monitor air quality and emissions from its smoke stacks as if it were a goodwill commitment<sup>84</sup>. The company states<sup>85</sup> that it automatically sends its data to the INEA, but this data is not generally available<sup>86</sup>. When some of this data was obtained through the courts and upon request of members of congress<sup>87</sup>, 2016-2017 figures revealed worrisome levels of particulate matter (PM<sub>2.5</sub>) up to six times the World Health Organization's recommended annual average concentrations<sup>88</sup>. Long-term PM<sub>2.5</sub> exposure has been linked to premature death, especially in people with chronic heart or lung disease, respiratory illness, decreased lung function and reduced lung function growth in children<sup>89</sup>. There is also evidence that it can cause cancer<sup>90</sup>.



Finger after touching the floor full of ore dust - Karolina Kina

Ternium Pollution Emission - Karolina Kina

## Impunity for Harms & Corporate Privilege

Despite these environmental and health harms, local organizations are frustrated at the lack of accountability. This is arguably

<sup>80</sup> Queiroz, A.L., Praça, M. & Bitencourt, Y. (2022, November). p.355. Also see Escola Politécnica de Saúde Joaquim Verãncio, Fiocruz. (2022, July 26). Caravana de vigilância popular em saúde discute os impactos da siderurgia no Rio. Retrieved from <https://www.epsjv.fiocruz.br/noticias/reportagem/caravana-de-vigilancia-popular-em-saude-discute-os-impactos-da-siderurgia-n-o-rio>

<sup>81</sup> Comparing Santa Cruz with Barra da Tijuca, an upper-class neighbourhood, demonstrates racialized socio-territorial inequality. As of May 15, 2020, Barra da Tijuca had 391 confirmed cases and Santa Cruz had 153. However, the fatality rate in Barra da Tijuca was 11.7%, while it reached 28.7% in Santa Cruz. See: Monteiro, P. (2024). Por imaginações feministas e uma ontologia de Abya Yala: Uma jornada de luta feminista pelo direito ao território e à vida na Zona Oeste do Rio de Janeiro. [Doctorado, Universidade Federal Fluminense, Programa de Pós-Graduação em Arquitetura e Urbanismo].

<sup>82</sup> Bonilla, J. A., Lopez-Feldman, A., Pereda, P.C., Rivera, N.M. & Ruiz-Ragle, J.C. (2023, January 17). Association between long-term air pollution exposure and COVID-19 mortality in Latin America. PLoS ONE 18(1), Article e0280355. <https://doi.org/10.1371/journal.pone.0280355>

<sup>83</sup> Ternium S.A. (2022, June). p. 57.

<sup>84</sup> Monitoring the region's air was initially a government responsibility, but it was first included as an obligation of the company under the Conduct Adjustment Agreement (TAC).

<sup>85</sup> Ternium Brasil (n.d.) Compromisso ambiental. <https://br.ternium.com/pt/sustentabilidade/meio-ambiente>

<sup>86</sup> The data was obtained by the Instituto Direito Coletivo (IDC) through a request in court and by representatives of the state legislature. It is not publicly available on a regular basis.

<sup>87</sup> During the 1st environmental monitoring campaign, the monthly averages of PM2.5 concentration in Santa Cruz were as follows: November 2016: 15.03 µg/m³, December 2016: 17.56 µg/m³, January 2017: 10.08 µg/m³. In the 2nd environmental monitoring campaign, the monthly averages of PM2.5 concentration in Santa Cruz were: May 2017: 30.21 µg/m³, June 2017: 30.92 µg/m³, July 2017: 34.01 µg/m³; See Instituto PACS, Rede Justiça nos Trilhos & Fundação Oswaldo Cruz. (2017, September).

<sup>88</sup> World Health Organization (WHO). (2021, September).

<sup>89</sup> United States Environmental Protection Agency. (2023, August 23). Health and Environmental Effects of Particulate Matter (PM). <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm>

<sup>90</sup> California Air Resources Board. (n.d.). Inhalable Particulate Matter and Health (PM2.5 and PM10). <https://ww2.arb.ca.gov/es/resources/inhalable-particulate-matter-and-health>



evidence of a “cozy relationship” with authorities that has marked the plant’s operations from the start.

Environmental authorities continue to approve and extend company licenses with seemingly little questioning. Furthermore, the company has so far come out unscathed from all of the legal and administrative challenges brought to date, despite evidence of serious harms.

In addition, the state of Rio de Janeiro affords generous tax benefits for steelmakers. Ternium reported a state tax benefit in 2020 of US\$186 million dollars<sup>91</sup>. Despite public controversy over tax breaks for this polluting industry, the state renewed this benefit for Ternium and other steelmakers until 2032 under Law 9.693/2022.

But the benefits are not restricted to the fiscal sphere. The sector is also exempt from municipal targets for reducing greenhouse gas emissions, which allows both the city and the steel mills to greenwash their decarbonization strategies, which on a large scale aggravates the climate crisis, and on a local scale reproduces environmental racism, given that the greatest and most direct harms affect the black population.

## Decarbonization Plans to Burden the Poor

Reinforcing such discrimination, the Brazilian emissions reduction strategy<sup>92</sup> that is reflected in Ternium’s plans is poised to create further harms.

Rio de Janeiro was the first municipality in Brazil to institute a climate change policy, but this excluded the steel and aviation sectors<sup>93</sup>. When the steel mill in Santa Cruz went into operation in 2010, municipal GHG emissions doubled<sup>94</sup>. But this is hidden in the city’s plans. The city has committed to reduce its net emissions by 20% by 2030 and by 100% by 2050 compared to the base year of 2017. However, if the steel and aviation sectors were included, the 2030 target would only represent a 11% reduction over 2017 levels. Furthermore, if the base year were reset to 2005, when Rio de Janeiro undertook its first GHG inventory and before Ternium’s plant was in operation, the 2030 target would be 68% higher<sup>95</sup>. Not a reduction at all.

Ternium’s plant uses traditional steelmaking technology, based on burning fossil fuels in blast furnaces, generating more than 10



Ternium entrance - Karolina Kina

<sup>91</sup> Ternium S.A. (2021, March 31). Form 20-F for the fiscal year ended December 31, 2020. P. 107. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001342874/000134287421000031/tx-20201231.htm>

<sup>92</sup> Ministério do Meio Ambiente. (2008). Política Nacional sobre Mudança do Clima. <https://antigo.mma.gov.br/clima/politica-nacional-sobre-mudanca-do-clima/plano-nacional-sobre-mudanca-do-clima.html>

<sup>93</sup> Prefeitura da Cidade Rio de Janeiro, Secretaria Municipal de Fazenda e Planejamento, Secretario Municipal de Meio Ambiente da Cidade, SMFP. (2021). Plano de Desenvolvimento Sustentável e Ação Climática. p. 83.

<sup>94</sup> Data from 2017 study. For more information see Instituto PACS. (2022). p. 16.

<sup>95</sup> Instituto PACS. (2022).



Ternium Pollution Cloud - Karolina Kina

million tons of CO<sub>2</sub> per year<sup>96</sup>. According to a 2022 PACS Institute study, the Santa Cruz plant is responsible for 62% of Ternium's GHG emissions considering its 17 production units worldwide<sup>97</sup>. As a result, while exporting the product from Brazil to profit elsewhere, the bulk of Ternium's emissions are left in Santa Cruz.

Nonetheless, Ternium plans to reduce its GHG emissions in Brazil by only 6.9% (0.83 MTCO<sub>2</sub>eq) by 2030. According to the company's 2019 Mitigation Plan<sup>98</sup>, rather than replacing its blast furnaces with electric arc furnaces to recycle steel or to replace coal with hydrogen, its principle decarbonization strategy is to replace the use of coal with charcoal. This reflects the chief strategy being promoted by Brazilian authorities, which relies on charcoal produced from monoculture crops such as eucalyptus. But such plantations are likely to devastate forests and communities where they are established.

In sum, Ternium's approach is a greenwashing strategy that promises to ensure that the bulk of GHG pollution continues to be borne one by one of the most vulnerable communities in the Global South, while the company continues to reap benefits in the Global North. As a result, unless it makes a radical change of course, its decarbonization strategy is poised to perpetuate environmental racism.



Fishermen with boat and their fishing nets - Anette Alencar

<sup>96</sup> Programa Brasileiro GHG Protocol. (2019). Inventário de emissões de gases de efeito estufa.

<sup>97</sup> Instituto PACS. (2022). With data from Programa Brasileiro GHG Protocol. (2019). and Ternium. (2021, June). Sustainability Report 2020. [https://s2.q4cdn.com/156255844/files/doc\\_financials/annual/2020/Sustainability-Report-2020.pdf](https://s2.q4cdn.com/156255844/files/doc_financials/annual/2020/Sustainability-Report-2020.pdf)

<sup>98</sup> The company's mitigation plan is reported on in Arcadis. (2021, April). Relatório de Análise do Desempenho Ambiental e Atendimento Legal para Renovação da LO nº IN036830: Complexo Siderúrgico da Ternium Brasil (Volume II).



# Recommendations

Santa Cruz, Brazil  
We urge Ternium to:

- 1** Acknowledge and redress all documented impacts of the plant's construction, ensuring direct compensation for affected residents who have filed lawsuits against Ternium Brazil for “silver rain” events, flooding, and home damages. Prioritize the centrality of the victims' suffering in compensation efforts.
- 2** Build a Public Health Reference Centre dedicated to specialized care ophthalmology, dermatology, and respiratory diseases, as well as provide funds to the municipality for the monitoring and generation of data on diseases that can be caused by steelmaking, such as skin, eye and respiratory diseases, and cancer. We emphasize that the company's logo should not be used as an advertising campaign in the funding of this Centre.
- 3** Undertake rehabilitation and remediation of the contamination of Sepetiba Bay, the Guandu River and the São Francisco River. Fund experts to monitor water, flora, and fauna in the biomes around the company's plant and publish the data in quarterly bulletins. The expert should be chosen by a committee made up of residents, academic research groups and civil society organizations with proven experience in protecting human and environmental rights and chosen by the residents.
- 4** Enhance transparency regarding the company's environmental impact, monitoring air quality, and providing information to the public on its website about pollution levels and control measures. Increase accountability and awareness regarding the company's efforts to mitigate environmental pollution and ensure public health and safety.
- 5** Commit to reducing emissions through the reformulation of the company's Energy Transition Plan to replace the current coal-based matrix with a clean, renewable source, excluding gas.
- 6** Stop branding projects, public facilities or mandatory compensations ordered by law or courts as corporate responsibility outcomes, remove the company's logo from all the current projects and material that applies that topic and clearly inform beneficiaries when providing funds related to legal compensation.
- 7** Establish an accessible grievance mechanism and a direct line for residents to report incidents and ask questions about environmental pollution control measures.



Picture showing AML Mine and a major Mine infrastructure ( New processing plant construction) in Zolowee Nimba County

## ArcelorMittal Dispossession of Tribal Lands and Livelihoods

As ArcelorMittal's iron ore project in northern Liberia seeks to triple and eventually sextuple its output, affected communities report that it is gradually destroying their land, forests, water and traditional livelihoods. The Western Range Project extracts iron ore from the Nimba Mountains to export to the company's steel plants in Europe, affecting tribal peoples who live near its mines and along the route to market. Distraught at the devastation and disillusioned by empty promises of jobs and training, and elusive economic contributions, communities are demanding information, participation, benefits, clean water, and reparations for their losses.

The Western Range Project cuts across three counties in Liberia, starting with the iron ore mines at Mount Tokadeh, Gangra and

Yuelliton at the northern tip of Nimba County bordering Guinea. A company-controlled railway starts in Nimba County and traverses Bong County to the Port<sup>99</sup> of Buchanan in Grand Bassa county. Iron ore mining and railroad construction first started with a Swedish-U.S.-Liberian joint venture known as LAMCO, in which the Liberian government had a 50% stake. It set up camp at Yekepa in the 1960s and built the railroad to take their ore to port. Having largely depleted mineral reserves at Mount Nimba, LAMCO halted activity in 1990 at the start of the civil war<sup>100</sup>. At war's end, in 2005, ArcelorMittal negotiated a 25-year mining concession and signed a Mineral Development Agreement (MDA) with the National Transitional Government of Liberia that was then renegotiated with the elected Government of Liberia in 2007<sup>101</sup>. The

<sup>99</sup> Bruno, K. (2020) The technopolitics of Swedish iron mining in Cold War Liberia, 1950-1990. *The Extractive Industries and Society* 7(2020), 39-49. <https://doi.org/10.1016/j.exis.2019.06.008>

<sup>100</sup> Ibid.

<sup>101</sup> Friends of the Earth Europe & Global Action on ArcelorMittal and Sustainable Development Institute Liberia. (2010). *Working for Development? ArcelorMittal's mining operations in Liberia*. p. 7-8. [https://www.foeeurope.org/sites/default/files/publications/foee\\_working\\_for\\_development\\_0610.pdf](https://www.foeeurope.org/sites/default/files/publications/foee_working_for_development_0610.pdf)



Liberian government holds a 15% interest in the project<sup>102</sup> and the company committed to make annual payments of US\$3 million to communities affected by its operations through a County Social Development Fund (CSDF).<sup>103</sup>

The mine reached commercial operation at 5 million tons per year of sinter fines in 2011 and since 2013, ArcelorMittal has sought to triple its output to 15 million tons per year and eventually double this<sup>104</sup>. Delayed until 2016 by the Ebola pandemic and poor market conditions, the company undertook an updated feasibility study from 2019-2020 and has been seeking an amendment to its MDA for the project expansion since 2021<sup>105</sup>. The MDA is still pending legislative ratification<sup>106</sup> and has not been made public, nor has the free, prior and informed consent of affected tribal peoples been obtained.

Even before reaching commercial production, this project came under question. In 2011, Friends of the Earth Europe and Sustainable Development Institute Liberia brought a complaint against the company to the Luxembourg National Contact Point responsible for the implementation of the OECD Guidelines for Multinational Corporations (NCP) for issues including, among others, the alleged misuse and inadequacy of the CSDF and a lack of communication with local communities about its operations and their potential impacts<sup>107</sup>. The complaint led to a mediation process, two fact finding missions and draft proposal presented to the Liberian Government recommending restructuring of the CSDF. Pending implementation of the proposal, the NCP also recommended that the company consult with communities and local authorities to identify and implement a



- 
- <sup>102</sup> ArcelorMittal. (2024, February 28). Form 20-F to year end 31 December 2023. p. 118. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342924000005/mt-20231231.htm>  
Friends of the Earth Europe & Global Action on ArcelorMittal and Sustainable Development Institute Liberia. (2010). p. 7.
- <sup>103</sup> Friends of the Earth Europe & Global Action on ArcelorMittal and Sustainable Development Institute Liberia. (2010). Working for Development? ArcelorMittal's mining operations in Liberia. p. 7-8. [https://www.foeeurope.org/sites/default/files/publications/foee\\_working\\_for\\_development\\_0610.pdf](https://www.foeeurope.org/sites/default/files/publications/foee_working_for_development_0610.pdf)
- <sup>104</sup> ArcelorMittal. (n.d.). Nimba Western Range Iron Ore Project Liberia: Project Phase 2: 2013-2034. [https://minedocs.com/21/ArcelorMittal\\_\\_Liberia-phase-2-project-2013.pdf](https://minedocs.com/21/ArcelorMittal__Liberia-phase-2-project-2013.pdf)
- <sup>105</sup> ArcelorMittal. (2022, March 11). Form 20-F for the fiscal year ended December 31, 2021. p. 119. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342922000009/mt-20211231.htm>
- <sup>106</sup> GNN Liberia. (2024, January 8). Unveiling the Political Landscape: HPX and ArcelorMittal Liberia in the Mining Industry. Retrieved from <https://gnnliberia.com/unveiling-the-political-landscape-hpx-and-arcelormittal-liberia-in-the-mining-industry/>
- <sup>107</sup> OECD Guidelines for Multinational Enterprises. (2011, January 3). Mining in Liberia. <https://mneguidelines.oecd.org/database/instances/lu0001.htm>

set of projects according to the proposed approach<sup>108</sup>. It is unclear if this ever occurred. Fifteen years later, these same concerns persist while others have arisen as a result of the project's grave impacts on communities in its area of operation.

Between December 2023 and January 2024, Green Advocates International held focus groups and interviews with eleven affected communities from Nimba, Bong and Grand Bassa Counties. Communities complained of noise, air and water contamination, land grabbing, harassment and police repression, and broken promises of jobs and benefits that add up to tribal peoples being gradually dispossessed of their means of survival<sup>109</sup>.

### **Nimba County: Mine-affected tribal communities**

In Nimba County, the sustenance of communities<sup>110</sup> from largely Mano tribal communities who were interviewed rely on cultivating crops such as cocoa, plantain and rubber, as well as vegetables and fruits, supplemented by protein caught through fishing in local streams. Some also engage in alluvial diamond mining<sup>111</sup>. Their cultural survival relies on sacred sites in this county's abundant and highly biodiverse forests.<sup>112</sup>

Community members from Zolowee, Gbapa, Bonlah, Lugeybee, and Sehyi-geh all raised concerns about water pollution. They observed sedimentation of water supplies downstream of the mine sites, contamination

of water with fuel, dumping of untreated sewage from the company's waste management plant in Yekepa, and the diversion of water leading to the flooding of some cultivated lands from construction of the tailings dam related to Phase II expansion. All of this has contributed to the loss of water supplies for drinking water, fishing and other domestic uses. Women, who are responsible for fishing activities, talked about being no longer able to fish in nearby streams because of the contamination. Women also raised concerns about health impacts from water contamination, particularly on pregnant women and infants while nursing. They reported that women and girls bear an added burden given that they are sent to town to bring back water, a near daily task that takes hours compounded with their other responsibilities and taking away from girls' schooling, and that is inadequate to meet their families' needs<sup>113</sup>.



<sup>108</sup> Luxembourg National Contact Point for the OECD Guidelines for Multinational Enterprises. (2013, September). Final Statement on the Specific Instance raised by Friends of the Earth Europe (FoE) and Sustainable Development Institute of Liberia (SDI). <https://cdc.gouvernement.lu/dam-assets/service/attributions/point-contact-national-luxembourgeois/final-statement.pdf>

<sup>109</sup> A summary of the results from this field research is provided in the following sections. Full results are forthcoming in a report from Green Advocates International.

<sup>110</sup> Communities from Nimba County included in this research are: Zolowee, Gbapa, Bonlah, Lugeybee, and Sehyi-geh with a visit to Area O in Yekepa

<sup>111</sup> SOMO. (2015, July). Liberia, Back in Business? Conflict and human rights issues in a post conflict environment. <https://www.somo.nl/wp-content/uploads/2015/06/Paper-Liberia-web-final.pdf>

<sup>112</sup> Ibid.

<sup>113</sup> Green Advocates International. (Forthcoming).





Image showing cracks to a house due to impact of the blasting in Bonla Nimba county

Communities also reported loss of farmland, including land grabs taking place without their knowledge or their free prior and informed consent as tribal peoples with customary land rights<sup>114</sup>. In a 2013 summary of its plans to scale up the Western Range Project, ArcelorMittal estimated that 385 hectares of agricultural land would be removed from community use necessitating “resettlement” and “livelihood restoration”.<sup>115</sup> However, the communities surveyed report that the company’s resettlement and alternative livelihood programs have not been effective. Rather, farmers claimed to have had crops destroyed without warning, lost farmland and have had access to land cut off that has yet to be compensated.

In order to obtain compensation for lost crops under Liberian law, it is particularly important that farmers could complete an inventory of the crops and types of crops destroyed, which is not possible without prior warning. Additionally, compensation has been frequently delayed, inadequate and without first reaching agreement with farmers. These are one-time payments. ArcelorMittal Liberia has reported on payouts to farmers in the press and on its website.<sup>116</sup> However, the Concerned Farmers’ Union, which organized in Nimba to channel farmers’ complaints, reports that a total 883 farms have been destroyed without farmers’ knowledge and that, to date, no more than 200 cases have been resolved taking up to two years to obtain compensation. “Farmers’ compensation should be completed within 90 days of crop counting and the signing of the Definitive Compensation Agreement (DCA),” stated a representative of the Concerned Farmers’ Union.

People from Sehgi-geh spoke about loss of access to forest areas important for traditional uses, including to gather herbs for medicinal use and as sacred sites. At least two rural villages in this same area and a farm close to Mount Yuelliton have reportedly been forcibly displaced<sup>117</sup>.



AML ore Processing Plant

<sup>114</sup> Hennings, A. (2021, March 8). Liberia – Context and Land Governance. <https://landportal.org/book/narratives/2021/liberia>

<sup>115</sup> ArcelorMittal. (n.d.).

<sup>116</sup> Communities from Nimba County included in this research are: Zolowee, Gbapa, Bonlah, Lugeybee, and Sehgi-geh with a visit to Area O in Yekepa

<sup>117</sup> Green Advocates International. (Forthcoming).





Picture showing AML Mine and a major Mine infrastructure

Blasting at the mines has also created a major disturbance for communities in Nimba. The GAI team observed a billboard on the way to two communities where the company posts information about upcoming blasting. However, traveling to check the billboard is an unrealistic burden for most community members, especially those that live in villages outside of town. Furthermore, farmers in Bonlah, Seyhi-geh and Lugeybee remarked that flying debris from blasting has made it dangerous for them to be out in their fields. Two towns near the Guinea border, Bonlah and Lugeybee, complained of a chronic cough from fumes and dust following blasting, as well as stress-related illnesses from the noise, citing high blood pressure, and headaches. One young woman from Zolowee told the research team, "I lost my young baby in 2023 due to the impact of the blasting." Community members showed the research team clay and earthen homes and schools in two communities, Bonlah and Lugeybee, near the Mount Gangra and Yuelliton mines that have developed cracks, which they attribute to mine blasting.

These communities also complained of a rising cost of living, as well as exclusion from jobs at the mine and the vocational training that ArcelorMittal touts in its annual reports.<sup>118</sup>

Communities such as Gbapa, Zolowee and Seyhi-geh, which are closest to the Tokadeh mine and where the company is also building its expanded processing plant, alleged that security guards have used tear gas and live ammunition. In one case, a woman reported minor injuries and damage to her home. At least two people reported arbitrary arrests, including a nursing mother who stated that she was held for nine days and only released

<sup>118</sup> Luxembourg National Contact Point for the OECD Guidelines for Multinational Enterprises. (2013, September). Final Statement on the Specific Instance raised by Friends of the Earth Europe (FoE) and Sustainable Development Institute of Liberia (SDI). <https://cdc.gouvernement.lu/dam-assets/service/attributions/point-contact-national-luxembourgeois/final-statement.pdf>

<sup>119</sup> Green Advocates International. (Forthcoming).



after her family intervened. One man stated, “I was arrested in 2023 and taken to jail when the security forces conducted a round of arbitrary arrest without any charge or warrant.”<sup>119</sup> He reported spending several days in custody before being released. The residents state they are being wrongly targeted for acts of fuel theft.

In Zolowee residents cited incidents of harassment, including in late 2023 during an elder’s funeral when community members including the elders’ son were reportedly targeted by police. The police are a special unit that receives orders from headquarters in Monrovia, rather than from Nimba County authorities.

**Bong County: Living along the railline**

Three communities, largely from Kpelle and Gio tribes, were surveyed in Bong County. Located along the railway line that ArcelorMittal operates to bring its ore to port an estimated seven times daily,<sup>120</sup> community members complained of cracked homes and of having their sleep disturbed by the train. The noise and vibrations have particularly negative repercussions for people hospitalized at the George Way Harley Hospital in Sanniquellie, the capital of Nimba County, about 20 meters from the train line. Community members also reported that sheep and goats have been hit and killed on the tracks.

As indicated in ArcelorMittal’s annual reports,<sup>121</sup> railway accidents have been a near annual issue, including in 2023. In November 2023, a railway bridge that crosses over the St.

John River between Bong and Nimba counties was destroyed in an accident. Repairs to support a truss at one end of the bridge dammed a waterway, giving rise to fears that this will lead to flooding of the surrounding community and nearby villages in rainy season.

**Grand Bassa County: Impacts on fisheries at the port**

In Grand Bassa county, focal groups were undertaken with three fishing communities from the Bassa tribe who are concerned that ore spills during the transfer of cargo from smaller to bigger vessels offshore is impacting artisanal fishery. Fishermen spoke of reduced catch and having to travel further out to fish. They also reported that collisions with



ArcelorMittal’s vessels have destroyed some of their nets. Furthermore, in Blowin, women reported that ArcelorMittal has closed access to a route they had been using to bring their fish to market, meaning higher transportation costs. Residents of Big Fanti Town and Moore Town also complained of disturbances of noise from heavy machinery at the port.

<sup>120</sup> ArcelorMittal. (n.d.).  
<sup>121</sup> For example, rail accidents have been reported by ArcelorMittal in 2021, 2022, and 2023. See: ArcelorMittal. (2024, February 28). p161-162. ArcelorMittal. (2023, March 11). Form 20-F for the fiscal year ended December 31, 2022. P. 183. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342923000005/mt-20221231.htm> ArcelorMittal. (2023, April 26). Integrated Annual Review 2022. p20. <https://corporate.arcelormittal.com/media/tmabqjue/arcelor-mittal-integrated-annual-review-2022.pdf>

## County Social Development Fund (CSDF)

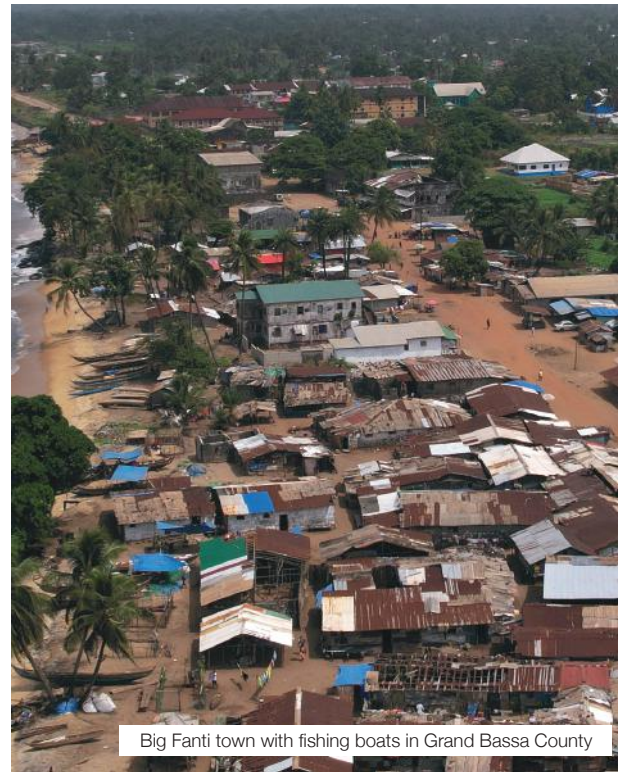
Adding to the tensions over these impacts, concerns persist over delivery of the County Social Development Fund. This fund requires annual payments of US\$3 million dollars, 80% of which is designated to be used at the county level and 20% that should be set aside for the most affected communities.<sup>122</sup> Over ten years ago, the final report of the Luxembourg National Contact Point in response to a 2011 complaint noted gaps in delivery of the funds as a result of widespread allegations of misuse and mismanagement by county elites.<sup>123</sup> The report also remarked on “the limited amount of money that can be spent, compared to the needs and demands at [the] local level.”<sup>124</sup> It recommended a complete restructuring of the CSDF.

Today, communities express ongoing, general frustration with management of the fund and with its inadequacy to meet their needs, especially considering the extent of impacts they face. In Nimba, communities commented that the funds are usually only enough for one or two communities with the most pressing needs, most often the largest two communities. These communities also complained about a lack of reporting back on funds and exclusion from decisions about contractors, leading to cost overruns. Bong and Grand Bassa County communities echoed concerns over a lack of transparency and unfinished projects, stating that they had not been convened to a meeting to discuss local fund dispersal for at least two years. and Grand Bassa County communities

echoed concerns over a lack of transparency and unfinished projects, stating that they had not been convened to a meeting to discuss local fund dispersal for at least two years.

## Nowhere Clear to Go

In the absence of reliable administrative or legal channels through which to make complaints and obtain redress, communities have been directed to the company’s project-level grievance mechanism. Across the board, they reported that the process is confusing, ineffective and that there is a large and growing backlog of unresolved complaints, resulting in latent tensions that are likely to continue spilling over in protests.



Big Fanti town with fishing boats in Grand Bassa County

<sup>122</sup> Friends of the Earth Europe & Global Action on ArcelorMittal and Sustainable Development Institute Liberia. (2010). p. 7

<sup>123</sup> Ibid. p.16-18.

<sup>123</sup> Luxembourg National Contact Point for the OECD Guidelines for Multinational Enterprises. (2013, September).



# Recommendations

Liberia

We urge ArcelorMittal to:

- 1** Cease pollution of water sources and ensure access to safe drinking water for affected communities. Additionally, restore damaged land and forests, including the replanting of trees destroyed by mining activities.
- 2** Provide employment opportunities that enable community members to sustain their families. Establish a system for timely compensation for damaged crops and livelihoods, with active input from affected communities.
- 3** Engage meaningfully with communities in decision-making processes, including implementing Free Prior and Informed Consent (FPIC) for both land use and mining operations. Clear buffer zones between mines and communities should be established, with consent from affected residents.
- 4** Abolish the use of security forces to harass or intimidate communities. Safety measures should be implemented during equipment movement and explosives blasting, and infrastructure such as train tracks should be maintained to prevent accidents and ensure community safety.
- 5** Protect cultural sites from destruction during mining expansion. Provide timely information about mining activities and explosives blasting schedules to affected communities, with the assistance of the community to enhance transparency and community engagement.

## Ayotitlán Operating in a Zone of Silence

On November 24, 2023, Higinio Trinidad de la Cruz was last seen entering a meeting at the municipal presidency of Cuautitlán de García Barragán in the state of Jalisco. The next day, he was found shot and killed.<sup>125</sup> The assassination of this defender and upcoming candidate for the representation of the Ejido de Ayotitlán is the most recent aggression in a context of violence and persecution for more than ten years against those who speak out against harms from the Peña Colorada mine and the control exercised by organized crime in this area. These crimes have received little

attention from Mexican authorities at all levels, the press, or the two steel companies operating here, allowing the mine to operate without interruption in a zone of silence and sacrifice.

The Nahua indigenous communities affected by the Peña Colorada iron ore mine are located on the border of two states in western Mexico, between the municipality of Cuautitlán de García Barragán in Jalisco and the municipality of Minatitlán in Colima. An area with high levels of poverty,<sup>126</sup> it is also rich in water, forests and biodiversity. UNESCO

<sup>125</sup> Tsikini communiqué quoted in Nuño, A. (2023, November 30). Higinio Trinidad de la Cruz, environmental defender of the Sierra de Manantlán is murdered despite being under the Protection Mechanism for Human Rights Defenders. Retrieved from <https://adondevanlosdesaparecidos.org/2023/11/30/mexico-higinio-trinidad-de-la-cruz-defensor-ambiental-de-la-sierra-de-manantlan-es-asesinado-pese-a-estar-bajo-el-mecanismo-de-proteccion-para-personas-defensoras/vanlosdesaparecidos.org/2023/11/30/mexico-higinio-trinidad-de-la-cruz-defensor-ambiental-de-la-sierra-de-manantlan-es-asesinado-pese-a-estar-bajo-el-mecanismo-de-proteccion-para-personas-defensoras/>

<sup>126</sup> Secretaría de Bienestar. (2022, November 28). Informe anual sobre la situación de pobreza y rezago social 2022: Jalisco, Cuautitlán de García Barragán. Gobierno de México. [https://www.gob.mx/cms/uploads/attachment/file/699395/14\\_027\\_JAL\\_Cuautitla\\_n\\_de\\_Garci\\_a\\_Barraga\\_n.pdf](https://www.gob.mx/cms/uploads/attachment/file/699395/14_027_JAL_Cuautitla_n_de_Garci_a_Barraga_n.pdf)



declared the Manantlán highlands a Biosphere Reserve in 1987<sup>127</sup>, particularly given the presence of the oldest living ancestor of maize, teocintle. However, the area's protected status has not prevented deforestation, loss and contamination of rivers and springs, impacts on local fauna and the lives of communities that have been displaced by the voracious advance of legal and illegal mining, clandestine logging and organized crime.<sup>128</sup>

The Peña Colorada mine has operated since 1974, first by a state-owned firm and, since 2005, by Consorcio Minero Benito Juárez Peña Colorada, S.A. de C.V. The Consorcio is a joint venture between steel companies Ternium and ArcelorMittal with each holding 50%. It has a concentrator plant near the mine and ships the product by pipeline to its pelletizing plant in the port of Manzanillo on Colima's Pacific coast.<sup>129</sup> The annual production of 4.1

million tons of pellet and 0.4 million tons of iron concentrate<sup>130</sup> are principally used by the two companies at their steel plants in Mexico.<sup>131</sup>

The indigenous community of Ayotitlán, on whose land the mine operates, has never been recognized by the state as indigenous. It has been recognized, however, as an agrarian community, or ejido, with corresponding land rights, albeit far less than the expanse of their ancestral territory. In 1992, they achieved their first land-use agreement with the company. The mine's social and environmental impacts have deepened over the years, but serious conflict arose particularly since a new land-use agreement was signed in 2012, since which time community members have denounced that a small group of people took control of the Ejido without respect for the assembly.<sup>132</sup> In 2017, the company and the ejido signed



Credits: Tsikini

<sup>127</sup> Secretaría de Medio Ambiente y Recursos Naturales. (2018, April 2). Reserva de la Biosfera Sierra de Manantlán. Gobierno de México. <https://www.gob.mx/semarnat/articulos/reserva-de-la-biosfera-sierra-de-manatlan>

<sup>128</sup> Hernández, S. (2020, April 17). El Ejército entró por talamontes a la ANP Sierra de Manantlán. Retrieved from <https://verdebandera.mx/entra-el-ejercito-con-operativo-a-manatlan-detienen-talamontes2/erativo-a-manatlan-detienen-talamontes2/>

<sup>129</sup> ArcelorMittal. (2024, February 28). p. 110. Also, Ternium S.A. (2024, March 28). Form 20-F for fiscal year ending December 31, 2023. p. 37. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001342874/000134287424000018/tx-20231231.htm>

<sup>130</sup> Peña Colorada. (n.d.). Sobre Peña Colorada. <https://www.pcolorada.com/sobre-pena-colorada/>

<sup>131</sup> Ternium S.A. (2024, March 28). p. 45. Also, ArcelorMittal. (2024, February 28). p. 109.

<sup>132</sup> Nuño, A. (2023, October 2). Sierra de Manantlán: territorio indígena marcado por la minería de hierro y el narcotráfico. Retrieved from <https://adondevanlosdesaparecidos.org/2023/10/02/sierra-de-manatlan-territorio-indigena-marcado-por-la-mineria-de-hierro-y-el-narcotrafico/a-marcado-por-la-mineria-de-hierro-y-el-narcotrafico/>

another agreement, that prohibits legal action from community members, with the threat that payments to the ejido will stop in the case that legal action is taken.<sup>133</sup>

The recent history of violence and persecution against human rights defenders In 2012, Ternium and ArcelorMittal sought an agreement with the Ejido of Ayotitlán to expand their operations by 801 hectares. This would triple the amount of land available for iron ore extraction. But not everyone agreed and violence in the area soon increased.

Celedonio Monroy Prudencio was a highly visible community leader who for years had denounced illegal logging and impacts from the mine. In mid-2012, he received threats<sup>134</sup> and shortly later, he was physically assaulted and threatened by a group of armed men. Celedonio recognized some of his aggressors who he named in a formal complaint, including two community members who were linked to the 2012 agreement with the company.<sup>135</sup>

In October, Celedonio was disappeared by an armed commando who entered his house and took him by force. He hasn't been seen again.<sup>9</sup> A month later, the mining company and the Ejido signed their agreement.

Since Celedonio's disappearance, ejidatarios and other residents who have publicly denounced land dispossession and

contamination from the mine have faced threats, harassment, persecution, surveillance, attacks, disappearances and murder. According to one community member who requested anonymity, "Since 2012, we have lived in fear, we have been persecuted and threatened. They say 'stop interfering in the mines, the mines are ours,'" warning against any mobilization or legal action against the company.

### **Community members remain active, but pay a steep price**

In 2013, a group of ejidatarios filed a lawsuit over violation of their constitutional rights to request the cancellation of Peña Colorada's mining concessions, land-use agreements, environmental permits and other operating licenses. Two years later, the Second Collegiate Tribunal in Administrative and Labor Matters in Guadalajara granted a full suspension of these acts, obliging the mine's suspension.<sup>136</sup> But this never happened.

In 2015, non-compliance with the suspension led to a confrontation between a group of 600 ejidatarios, community members and mine workers during an attempt to stop operations. Following, thirty-four community members and their lawyer were detained and accused of kidnapping, dispossession and damage to private property.<sup>137</sup> Days later, the ejidatarios

<sup>133</sup> Ibid. Also see García Partida, J.C. (2012, October 25). Levantan a líder nahua en Jalisco. Retrieved from <https://www.jornada.com.mx/2012/10/25/estados/033n1est>

<sup>134</sup> Ibid.

<sup>135</sup> Ibid. Also see García Partida, J.C. (2012, October 25). Levantan a líder nahua en Jalisco. Retrieved from <https://www.jornada.com.mx/2012/10/25/estados/033n1est>

<sup>136</sup> Castillo, A. (2014, September 29). Collegiate Order to stop mining at Peña Colorada mine. Retrieved from <https://verdebandera.mx/ordena-colegiado-detener-extraccion-en-mina-pena-colorada/>

<sup>137</sup> Nuño, A. (2015, July 24). Deja enfrentamiento en Ayotitlán heridos y desaparecidos. Retrieved from [https://www.ntrguadalajara.com/post.php?id\\_nota=10379](https://www.ntrguadalajara.com/post.php?id_nota=10379)



were released, but the lawyer was held in a maximum-security prison for 9 months. They were all eventually acquitted of the charges.

More recently, elections for ejido representation, which is renewed every 3 years, have spurred violence against persons who would challenge the status quo.

On October 26 of 2020, Rogelio Rosales Ramos was murdered.<sup>138</sup> This young man had previously received threats from the legal advisor to the representative of the ejido of Ayotitlán and raised concerns over the situation in the community as a supporter of the Community's Council of Elders.

In 2021, J. Santos Isaac Chávez was candidate for president of the ejido, promising to hold the mining company to its commitments and to seek fair payment for mineral extraction. A week before the elections, on April 1, he was disappeared. Three days later he was found dead.<sup>139</sup>

Following his murder, the National Human Rights Commission (CNDH) issued precautionary measures to safeguard the community of Ayotitlán against "acts of violence perpetrated by organized crime".<sup>140</sup> In addition, community members became beneficiaries of the Protection Mechanism for Human Rights Defenders and Journalists under the Interior Ministry.

However, the violence continued against those demanding justice. Javier Gonzalez Contreras, who actively supported Isaac Chavez in his campaign, was murdered 4 months later.<sup>141</sup>

During the next three years, at least twenty more defenders have suffered aggressions and temporary forced disappearances in the area. Such is the case of Higinio Trinidad de la Cruz, who in 2022 was temporarily disappeared along with another community defender. While in captivity, they reported being questioned and threatened for their struggle against the mining company by alleged members of the Jalisco Cartel New Generation. In November 2023, Higinio, was disappeared and murdered.<sup>142</sup>

To date, these crimes have gone unpunished.

## Impunity and Silence

The possible involvement and lack of effective response from state authorities in support of the community of Ayotitlán allows violence and fear to fester to the benefit of the mine. In this context, the companies have remained largely silent about the violence when they could do far more, such as to press Mexican authorities to fully and impartially investigate.

In the case of Celedonio, despite the constant efforts of his family, the investigation into his 2012 disappearance has not advanced.



Higinio Trinidad de la Cruz - Picture taken from the social media

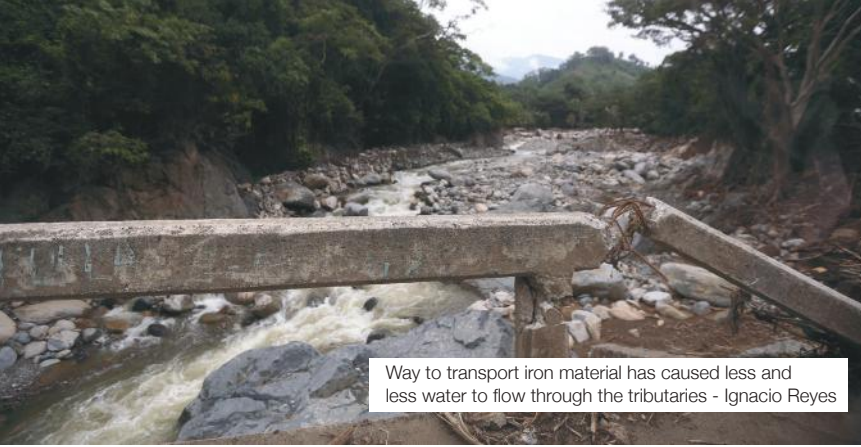
<sup>138</sup> Comisión Interamericana de Derechos Humanos. (2024, March 8). Resolución 11/2024: Medidas Cautelares No. 674-21. [https://www.oas.org/es/cidh/decisiones/mc/2024/res\\_11-24\\_mc\\_674-21\\_mx\\_es.pdf](https://www.oas.org/es/cidh/decisiones/mc/2024/res_11-24_mc_674-21_mx_es.pdf)

<sup>139</sup> Zamora Briseño, P. (2021, April 9). Asesinan a candidato a la presidencia del Comisariado Ejidal de Ayotitlán. Retrieved from <https://www.proceso.com.mx/nacional/estados/2021/4/9/asesinan-candidato-la-presidencia-del-comisariado-ejidal-de-ayotitlan-261722.html>

<sup>140</sup> Nuño, A. (2023, October 2).

<sup>141</sup> Ibid.

<sup>142</sup> Ibid.



Way to transport iron material has caused less and less water to flow through the tributaries - Ignacio Reyes

No investigation has even been opened into the 2021 disappearance and murder of J. Santos Isaac Chávez.<sup>143</sup>

Meanwhile, two investigations are in process for the crimes against Higinio, including one for his temporary disappearance in 2022 and another for his murder in 2023. One person has been detained in each case, including a former ejido representative in the latter and a municipal police officer in the former.<sup>144</sup> Nonetheless, family and friends face threats and harassment to try to make them back down. In March 2024, the Inter American Commission on Human Rights issued precautionary measures for 13 community members of Ayotitlán given "the grave and urgent situation they face, and risk of irreparable harm to their rights to live and personal integrity."<sup>145</sup>

For their part, Ternium and ArcelorMittal have largely contributed to the silence, distancing themselves from any possible role or

responsibility in the violence when they do acknowledge the situation.

Since at least 2012, ArcelorMittal's annual reports list as a risk that some of its operations in Mexico are in areas with heightened levels of drug-related violence where "executions and kidnappings of non-gang members" occur. It cites examples of the states of Michoacán, Sinaloa and Sonora, but does not mention Colima or Jalisco.<sup>146</sup> The only specific reference to above-mentioned events that we have been able to identify in ArcelorMittal's annual reports is found in its Sustainability Report on Mexico published in 2016 in which it reports in Spanish on the 2015 protest at its mine. It posits that those who participated were manipulated by an NGO, stating "Most were unfairly informed about suspicions that the company was not going to honor its future payments derived from the leasing contracts" and that the NGO wanted to "invalidate all previous contracts between the ejido and the company."<sup>147</sup> Seemingly to discredit the protest, it further added that "neither the invasion nor the legal proceedings had a legally valid status" and that its relationship with the Ejido Ayotitlán "is on positive terms."<sup>148</sup>

Ternium mentions this same protest in its 2015 annual report, suggesting that it was motivated purely by economic interests.<sup>149</sup> In its 2014 and 2015 annual reports, the

<sup>143</sup> Communication with Tsikini and Analí Nuño, April 9, 2024.

<sup>144</sup> Mexia, D. (2024, January 19). Detienen a Presunto Responsable del Homicidio del Activista Ambiental Higinio Trinidad de la Cruz. Retrieved from <https://udgtv.com/noticias/detienen-a-responsable-del-homicidio-de-higinio-trinidad/210505> Bobadilla, R. (2024, February 26). Vinculan a policía municipal por desaparición de dos activistas indígenas. Retrieved from <https://www.informador.mx/jalisco/Higinio-de-la-Cruz-Vinculan-a-policia-municipal-por-la-desaparicion-de-dos-activistas-de-la-comunidad-indigena-20240226-0103.html>

<sup>145</sup> Letra Fria. (2024, April 8). CIDH exige proteger a 13 comuneros de Ayotitlán. Retrieved from <https://www.chiapasparalelo.com/noticias/2024/04/cidh-exige-proteger-a-13-comuneros-de-ayotitlan/>

<sup>146</sup> ArcelorMittal. (2013, February 15). Form 20-F for fiscal year ended December 31, 2012. p. 21. <https://www.sec.gov/Archives/edgar/data/1243429/000124342913000002/20F2012.htm> ArcelorMittal. (2019, February 25). Form 20-F for fiscal year ended December 31, 2018. p. 24. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342919000005/mt-31122018x20xfdocume.htm> ArcelorMittal. (2020, March 2). Form 20-F for fiscal year ended December 31, 2019. p. 26. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342920000004/mt-31122019x20xfdocume.htm> ArcelorMittal. (2021, March 8). Form 20-F for fiscal year ended December 31, 2020. p. 36. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342921000004/mt-20201231.htm> ArcelorMittal. (2022, March 11). Form 20-F for fiscal year ended December 31, 2021. p. 38. <https://www.sec.gov/ix?doc=/Archives/edgar/data/0001243429/000124342922000009/mt-20211231.htm> ArcelorMittal. (2023, March 11). p44. ArcelorMittal. (2024, February 28). p. 31.

<sup>147</sup> ArcelorMittal. (2016). Sustainability Report, Mexico. p. 77. <https://mexico.arcelormittal.com/~media/Files/A/Arcelormittal-Mexico/reports-and-presentations/reporte-de-sustentabilidad-2016.pdf>

<sup>148</sup> Ibid.

<sup>149</sup> Ternium, S.A. (2016, April 29). Form 20-F for fiscal year ended December 31, 2015. p. 16. [https://www.sec.gov/Archives/edgar/data/1342874/000161577416005141/s103080\\_20f.htm](https://www.sec.gov/Archives/edgar/data/1342874/000161577416005141/s103080_20f.htm)



company also mentions that community members initiated legal action to cancel permits for the Peña Colorada mine. However, without giving further explanation, the company opined in 2014 that the "legal actions are not likely to succeed"<sup>150</sup> and, then in 2015, that they "did not succeed."<sup>151</sup> The next specific mention of a conflict around the Peña Colorada mine appears in Ternium's 2023 year-end report, where it states "the area of Jalisco, where Peña Colorada operates, is not exempt from the presence of criminal groups and, consequently, security has deteriorated in the region during the last few months."<sup>152</sup> Neither of the two companies makes mention of Higinio's murder, nor the violence from previous years, much less that these were community rights defenders who represented a risk to company interests.

When contacted by the Business and Human Rights Resource Centre concerning Higinio's murder, the companies did respond. Ternium regrets the murder, while "categorically [rejecting] any speculation of its involvement."<sup>153</sup> ArcelorMittal expressed its condolences, citing its new human rights policy and "strongly [emphasizing] that our company has absolutely no connection with this terrible act," reiterating that the insecurity is a generalized problem in Mexico and not at all specific to its operations. Neither company committed to taking any specific action to ensure a full and impartial investigation into the case.<sup>154</sup>



Security evaluation of the defenders of the territory in the Sierra de Manantlán - Ignacio Reyes

## Loss of Water and Life

Beyond the ejido of Ayotitlán, surrounding communities such as La Astilla, Las Pesadas and El Mameycito have also been seriously affected by the Peña Colorada mine. They are communities that do not have a land use

agreement with the company and who claim that their right to self-determination has been ignored. They report having suffered displacement, loss of water sources, air pollution and deforestation.

<sup>154</sup> Business & Human Rights Resources Centre. (2024, January 31). ArcelorMittal's response.

[https://media.business-humanrights.org/media/documents/AcelorMittals\\_response.pdf](https://media.business-humanrights.org/media/documents/AcelorMittals_response.pdf)

Gerritsen, P.W.R. & Alvarez G., N.S. (2017, May). Capítulo 5: Conflictos Ambientales en la Región Costa Sur del Estado de Jalisco en el Occidente de México: Problemas y Perspectivas. In Conflictos Ambientales en Ecosistemas Estratégicos: América Latina y el Caribe Siglos XIX - XXI (pp 67-84). Perafán Cabrera, A. & Elías Caro, J.E. (Eds.) Libros Universidad Nacional Abierta y a Distancia. <https://repository.unad.edu.co/handle/10596/45305>

Speaking anonymously, one community member says, “we have had many problems since the arrival of Peña Colorada. Land dispossession, constant threats, environmental damage, contamination of rivers and aquifers due to seismic movements caused by mining, exploring and blasting at Peña Colorada. The mining company takes the wealth away, leaving our communities abandoned.”

Communities at risk of displacement from further expansion of the mine and other illegal mining in the area include Las Pesadas, Plan de Mendez, La Astilla, El Mameycito, El Naranjal, Rancho Viejo, El Platanar, Cortapico, San Antonio, Chagavilán, Chaquiáhuatl, La Piedra, El Pedregal and El Naranjal. Still remembered, the communities of Tenamaxtla and Timbillos were displaced decades ago. Downstream communities also report water loss from the Marabasco River due to mining activities, including water used to transport concentrate to the plant in Manzanillo.

Academics such as Gerritsen and Alvarez have reported on some of these impacts. Gerritsen described environmental threats arising from the Peña Colorada mine as a result of air, water and soil contamination, biodiversity loss, noise, deforestation and soil erosion. He also identified impacts on agricultural activities as a result of pollution and dispossession of Indigenous communities from their ways of life.<sup>155</sup>

In 2008, the Latin America Water Tribunal held in Guatemala issued a resolution against Mexican authorities for environmental degradation in the buffer zone of the Sierra de

Manantlán Biosphere Reserve. It recommended that Mexico “use the law to take action against mining activities that are contaminating the Marabasco River Basin, listen to the Nahua communities, update information on environmental impacts in the area, and compensate the Indigenous people for the harms from iron ore extraction.”<sup>156</sup>

Despite such harms, only one sanction against the company was identified. In 2020, PROFEPA applied a fine of about \$30,000 USD for non-compliance with the terms and conditions set to rezone the forest area for an iron ore project.<sup>157</sup>

In this context of evident inaction on the part of the state and given the severity and urgency of the threats that defenders face, as the Inter-American Commission on Human Rights has recognized,<sup>158</sup> Mexican organizations and their allies call on all stakeholders, including the companies, to take concerted action to address the root causes of conflict and ensure respect for human rights and the environment.

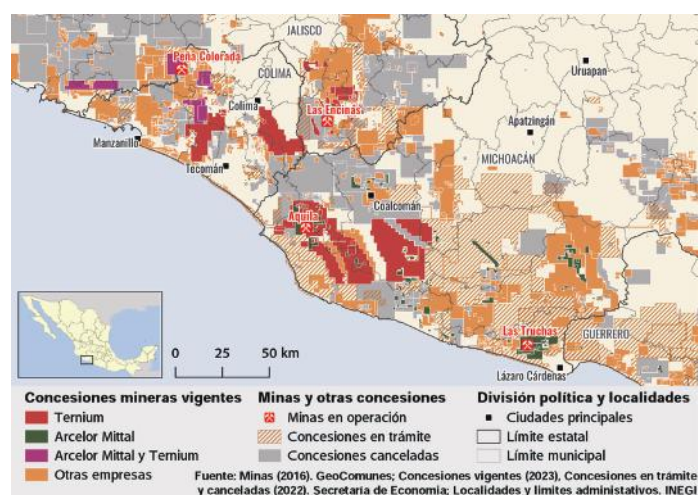


Photo credits: Mongabay

- <sup>155</sup> Gerritsen, P.W.R. & Alvarez G., N.S. (2017, May). Capítulo 5: Conflictos Ambientales en la Región Costa Sur del Estado de Jalisco en el Occidente de México: Problemas y Perspectivas. In *Conflictos Ambientales en Ecosistemas Estratégicos: América Latina y el Caribe Siglos XIX - XXI* (pp 67-84). Perafán Cabrera, A. & Elías Caro, J.E. (Eds.) Libros Universidad Nacional Abierta y a Distancia. <https://repository.unad.edu.co/handle/10596/45305>
- <sup>156</sup> Tribunal Latinoamericano del Agua. (2008, September 12). Caso: Deterioro de la cuenca del río Marabasco en la zona de amortiguamiento de la Reserva de la biosfera de la Sierra de Manantlán (RBSM). Estados de Jalisco y Colima, República Mexicana. [https://tragua.org/wp-content/uploads/2012/04/veredicto\\_rio\\_marabasco.pdf](https://tragua.org/wp-content/uploads/2012/04/veredicto_rio_marabasco.pdf)
- <sup>157</sup> Procuraduría Federal de Protección al Ambiente. (2020, February 25). Impone Profepa multa a minera por incumplir la legislación ambiental para el cambio de uso de suelo en terrenos forestales, en Colima. <https://www.gob.mx/profepa/prensa/impone-profepa-multa-a-minera-por-incumplir-la-legislacion-ambiental-para-el-cambio-de-uso-de-suelo-en-terrenos-forestales-en-colima>
- <sup>158</sup> Inter American Commission on Human Rights. (2024, March 12). CIDH otorga medidas cautelares a integrantes de la comunidad indígena Nahua de Ayotitlán en México. <https://www.oas.org/pt/CIDH/jsForm/?File=/es/cidh/prensa/comunicados/2024/052.asp>



# Recommendations

Ayotitlán, México

We urge Ternium and ArcelorMittal to:

- 1** Cease pollution and hoarding of water sources. Ensure access to safe drinking water for affected communities and for the ecosystems. Cease the deforestation and destruction of the mountains and restore damaged land and forests.
- 2** Acknowledge and fully redress all environmental and social impacts of mining ore to the present day.
- 3** Fund an international group of experts to conduct an environment and human rights impact assessment with active input from affected communities, including a determination on the right to shared benefits since the 70s to this day, that the community has lost, based on the centrality of the victims' suffering.
- 4** Establish a system for timely compensation for damaged crops and livelihoods, with active input from affected communities. Provide employment opportunities that enable community members to sustain their families.
- 5** Engage meaningfully with communities in decision-making processes, including implementing Free Prior and Informed Consent (FPIC) for both land use and mining operations.
- 6** Adopt strong and effective due diligence processes to prevent, mitigate and remedy, including non-repetition guarantees to stop the violence against environmental and human rights defenders. This includes conducting internal investigations on Peña Colorada employees directly mentioned as possibly involved in threats and attacks with strong ties with other suspects.
- 7** Perform a social, political, and economic impact assessment of the disappearances and assassinations of defenders, including Celedonio Monroy Prudencio, Rogelio Rosales Ramos, J. Santos Isaac Chavez, Javier Contreras Gonzalez, Higinio Trinidad de la Cruz, and others on the territory, adopting as a central axis a political position aimed at eradicating violence against defenders of natural resources; and include measures for prevention, mitigation, reparations and non-repetition.



Créditos: Heriberto Paredes

43

## Aquila Opposition Disappeared

On January 15, 2023, teacher and indigenous community leader Antonio Díaz Valencia and Mexican human rights lawyer Ricardo Lagunes Gasca were forcibly disappeared.<sup>159</sup> Despite a nearby security checkpoint, their white pick-up truck was found abandoned with flat tires on a highway between the states of Colima and Michoacán. They had just left a community assembly in San Miguel de Aquila, Michoacán at which they were

discussing upcoming community elections and management of payments from Ternium's Aquila iron ore mine.<sup>160</sup>

Antonio was a strong candidate for upcoming community elections in the ejido of San Miguel de Aquila and Ricardo was implementing a legal strategy to support them in defending their Indigenous territory. They had won lawsuits to enable long

<sup>159</sup> This section was documented by Global Rights Advocacy (GRA) under its human rights defender's program from the perspective of families affected by enforced disappearances of environmental defenders. GRA does not represent the indigenous community of San Miguel de Aquila. Nuño, A. & Lakhani, N. (2023, January 20). Missing Mexican environmentalists' families accuse mining Company. Retrieved from <https://www.theguardian.com/world/2023/jan/20/missing-mexican-environmentalists-families-accuse-ternium-mining-company>. Nuño, A. (2023, January 31). Desaparecen a defensores de Aquila tras amenaza de minera y persecuciones, acusan comuneros. Retrieved from <https://adondevanlosdesaparecidos.org/2023/01/31/desaparecen-a-defensores-de-aquila-tras-amenaza-de-minera-y-persecuciones-acusan-comuneros/> and Jimenez, G. (2023, October 2). Ricardo Lagunes and Antonio Díaz: Defender un territorio en donde los cerros son de metal. Retrieved from <https://adondevanlosdesaparecidos.org/2023/10/02/ricardo-lagunes-y-antonio-diaz-defender-un-territorio-en-donde-los-cerros-son-de-metal/>

<sup>160</sup> Tlanesi. (2022, January 17). Entrevista con Antonio Díaz Valencia, consejero de la comunidad indígena de Aquila, Michoacán [Video] Facebook. [https://www.facebook.com/watch/live/?ref=watch\\_permalink&v=888730601797842](https://www.facebook.com/watch/live/?ref=watch_permalink&v=888730601797842), Nuño, A. (2023, January 31). and Jimenez, G. (2023, October 2): and Archivo Digital (AD) (2022, May 22). Entrevista Ricardo Lagunes. Vecinos de la comunidad de Aquila, Michoacán se manifiestan en las oficinas agrarias. [Video] YouTube. <https://www.youtube.com/watch?v=7br3RNljc8&t=93s>



overdue democratic community elections, to defend community interests and raise concerns about mining.<sup>161</sup> They had also been seeking national attention and had announced an upcoming peaceful blockade as they denounced corruption in agrarian tribunals, Ternium's alleged non-compliance with land-use agreements, and undue pressure from the company to expand the mine.<sup>162</sup> Despite international outcry,<sup>163</sup> and with Antonio and Ricardo still missing, community elections were held and ratified on September 25, 2023. The new community representative has been an employee of the mine since 2008.<sup>164</sup>

Antonio and Ricardo's family members continue demanding their safe return under humanitarian grounds and exhaustive investigation that would consider the responsibility of both state and company actors.<sup>165</sup> In the context of extraordinary levels of impunity for violent crime, over 110,000 disappeared, and more than 52,000 unidentified bodies in Mexico, this requires home governments, investors and others to take supportive action for a humanitarian recovery and a truth seeking mechanism.<sup>166</sup>

## Mining in a Conflict Zone

Ternium has operated the Aquila open pit iron ore mine for nearly two decades through its Mexican subsidiary Las Encinas S.A. de C.V. (LESA).<sup>167</sup> Its mining concessions were granted between 1980 and 1993, and temporary land use agreements with the indigenous community of San Miguel de Aquila were first signed in 1990 and later modified.<sup>168</sup> Ternium promises community development and progress,<sup>169</sup> but over time the mine has had serious environmental



in the zocalo, courtesy of family Lagunes Gasca

<sup>161</sup> Nuño, A. (2023, January 31). and Jimenez, G. (2023, October 2).

<sup>162</sup> Tlanesi. (2022, January 17). Nuño, A. (2023, January 31). and Jimenez, G. (2023, October 2).

<sup>163</sup> U.S. Dep't of State, Bureau of Democracy, H.R. and Lab., Mexico 2023 Human Rights Report, page. 31; Statement by Luxembourg at Mexico Review Universal Periodic Review (UPR), Twitter: <https://x.com/LUinGeneva/status/1750180999613264349>; McKean, D. (2023, March 28). ICAR urges United States to push Mexican government for accountability in forced disappearance of Human Rights Defenders, International Corporate Accountability Roundtable. ICAR. <https://icar.ngo/icar-writes-letter-urging-usg-to-investigate-forced-disappearance-of-human-rights-defenders/>. (2023, March 23). Disappearance of Ricardo Lagunes and Antonio Diaz in Mexico : no news despite international pressure. IDV. <https://www.initiative-devoirdevigilance.org/post/disappearance-of-ricardo-lagunes-and-antonio-diaz-in-mexico-no-news-despite-international-pressure>. Schnuer, C. (2023, March 16). Group slams lack of Luxembourg due diligence in case of missing activists. Retrieved from <https://delano.lu/article/groups-slams-lack-of-luxembourg>

<sup>164</sup> Méndez, A. (2023, September 28). TUA 38 recognizes the Aquila commissariat presided over by Uriel Gutiérrez. Retrieved from <https://www.quadratin.com.mx/municipios/reconoce-tua-38-a-comisariado-de-aquila-presidido-por-urriel-gutierrez/>. Nuño, A. (2023, September 25). La última foto de los defensores de Aquila. Retrieved from <https://adondevanlosdesaparecidos.org/2023/09/25/la-ultima-foto-de-los-defensores-de-aquila/>

<sup>165</sup> Nuño, A. & Lakhani, N. (2023, January 20).

<sup>166</sup> Instituto de Investigaciones Jurídicas de la UNAM. (2024, March 10). Primer encuentro internacional sobre defensores, desapariciones forzadas y empresas. <https://www.juridicas.unam.mx/actividades-academicas/3393-primer-encuentro-internacional-sobre-defensores-desapariciones-forzadas-y-empresas>. Global Rights Advocacy, Asesoría y Defensa Legal del Sureste, Seattle University International Human Rights Clinic, Tsikini & Global Exchange. (2024, March). Informe Defensores del medio ambiente y territorio indígena en México. Factores de riesgo y falta de marco jurídico sobre responsabilidad de empresas.

<sup>167</sup> Ternium S.A. (2007). Environmental impact assessment of the Aquila Project. Ternium S.A. (2023, April 13). Letter to Ms. Beatriz Balbin, Special Procedures Chief, Office of the High Commissioner of the UN for Human Rights. <https://spcommreports.ohchr.org/TMResultsBase/DownloadFile?gld=37474>

<sup>168</sup> Ternium S.A. (2023, April 13). Misión Permanente de México ante la ONU y Otros Organismos Internacionales con sede en Ginebra, Suiza. (2023, March 31). Letter to the Oficina del Alto Comisionado de las Naciones Unidas para los Derechos Humanos, Ginebra. <https://spcommreports.ohchr.org/TMResultsBase/DownloadFile?gld=37439>

<sup>169</sup> Ternium Mexico (n.d.). Acero sustentable desde su origen. <https://mx.ternium.com/es/nuestra-empresa/desarrollo-minero>

impacts<sup>170</sup>, such as deforestation<sup>171</sup>, contamination and loss of water sources,<sup>172</sup> and conflicts between the company and the community.<sup>173</sup> As one family member states, "I have witnessed the destruction of nature, deforestation, and loss of animal life. I have the memory of a river that used to bring life, but that has disappeared, just as the defenders Ricardo and Antonio disappeared."

This has led to deep community divisions, violence, repression, criminalization and disappearance of community leaders.<sup>174</sup>

San Miguel de Aquila is located in the coastal highlands of northern Michoacán, an area not only rich in forests, fruit, water and minerals, but also a corridor for the cultivation and trafficking of drugs and arms, including a strategic port at Lázaro Cárdenas on the Pacific coast.<sup>175</sup> It is an area of extreme violence<sup>176</sup> related to activities such as drug trafficking, kidnapping, extortion, and the illegal exploitation of natural resources.<sup>177</sup> It is also one of the most dangerous places to be a land and environment defender. At least 32 environmental defenders have been



Antonio Díaz Valencia holding the sun on the highway between Aquila and Coalcomán - courtesy of Díaz Valencia Family

disappeared in the states of Michoacán, Colima and Jalisco, where Ternium operates, between 2008 and 2023 for struggles over mining and logging.<sup>178</sup>

Following a series of protests over environmental impacts and scarce benefits from the mine in San Miguel de Aquila,<sup>179</sup> and in the company's interest of expanding the

- 
- <sup>170</sup> Pérez Jiménez, S. (2021). Informe Sobre EITI-México: Avances y Desafíos en la Transparencia Socioambiental. <https://fundar.org.mx/wp-content/uploads/2021/06/Informe-Sombra-EITI-Mexico.pdf>. Observatorio Paisajes Sociales Mineros. (2015, August 28). Mina Las Encinas, Michoacán. <http://mineria.ciga.unam.mx/www-paisajesmineros/pags/minas/lasencinas.html>. Tlanesi. (2022, January 17).
- <sup>171</sup> 2007 Environmental Impact Report for the Aquila Project.
- <sup>172</sup> Tlanesi. (2022, January 17). Observatorio Paisajes Sociales Mineros. (2015, August 28).
- <sup>173</sup> Pérez Jiménez, S. (2021). Tlanesi. (2022, January 17). Observatorio Paisajes Sociales Mineros. (2015, August 28).
- <sup>174</sup> Nuño, A. (2023, January 31); Jimenez, G. (2023, October 2).
- <sup>175</sup> Le Cour Grandmaison, R. & Frissard Martinez, P. (2024, January). Violent and Vibrant: Mexico's Avocado Boom and Organized Crime. <https://insightcrime.org/wp-content/uploads/2023/08/Romain-Le-Cour-Grandmaison-Paul-Frissard-Martinez-Violent-and-vibrant-Mexico-avocado-boom-and-organized-crime.-GI-TOC-January-2024.pdf>. Shuldiner, H. (2022, January 28). Lime Crisis in Mexico as Cartels Target Farmers. Retrieved from <https://insightcrime.org/news/lime-crisis-mexico-cartels-target-farmers/>. Rosado, Y. (2023, January 27). CJNG Control of Illegal Mining in Michoacán, Mexico, Claims Indigenous Lives. Retrieved from <https://insightcrime.org/news/cjng-control-illegal-mining-michoacan-mexico/>. Proceso. (2022, July 29). Balaceras tensan Aquila; serian clashes del CJNG contra grupos de "El Toro" y "Comandante Teto". Retrieved from <https://www.proceso.com.mx/nacional/2022/7/29/balaceras-tensan-aquila-serian-choques-del-cjng-contra-grupos-de-el-toro-comandante-teto-290557.html>
- <sup>176</sup> In Ternium S.A. (2023, April 13)., the company explains that the security crisis is occurring both inside and outside the perimeter of its concessions and facilities.
- <sup>177</sup> Currently, the most prominent organized crime group in the region is the Jalisco Cartel - New Generation (CJNG). InSight Crime. (2020, July 8). Cártel Jalisco Nueva Generación (CJNG). <https://insightcrime.org/mexico-organized-crime-news/jalisco-cartel-new-generation/>. Barrera, U. (2023, December 1). Estructura para relevo de "El Mencho". Retrieved from <https://laopiniondemexico.mx/estructura-para-relevo-de-el-mencho/>
- <sup>178</sup> Currently, the most prominent organized crime group in the region is the Jalisco Cartel - New Generation (CJNG). InSight Crime. (2020, July 8). Cártel Jalisco Nueva Generación (CJNG). <https://insightcrime.org/mexico-organized-crime-news/jalisco-cartel-new-generation/>. Barrera, U. (2023, December 1). Estructura para relevo de "El Mencho". Retrieved from <https://laopiniondemexico.mx/estructura-para-relevo-de-el-mencho/>
- <sup>179</sup> Gómez Durán, T. & Ayala, A. (2023, October 2). A estas personas las desaparecieron por defender el ambiente y el territorio de México, Mongabay. Retrieved from <https://es.mongabay.com/2023/10/a-estas-personas-las-desaparecieron-por-defender-el-ambiente-y-territorio-en-mexico/>



mine,<sup>180</sup> Ternium reached a new agreement with the community in 2012 that included royalty payments. The land use agreement was also modified in 2019, expanding the company's area of operation by about 200 hectares.<sup>181</sup> As part of this latter agreement, an additional land use payment was agreed to be paid via community leadership, creating conflict over whether the rest of the community would see any benefit from these payments.<sup>182</sup>

In the period leading up to 2019, the community suffered serious aggressions. For example, it was reported that after the company published information the royalty payments agreed to in 2012, organized crime began to extort the community.<sup>183</sup> A group of community members, including those who led the struggle for mining royalties, were also criminalized and several imprisoned.<sup>184</sup> In 2013, three community authorities who had taken legal action against Ternium's mine were disappeared and later found dead.<sup>185</sup>

## Divide and conquer

While Ternium claims that these are internal community conflicts,<sup>186</sup> community members have denounced to the press what they see as

the company's undue interference in the political and institutional life of the community, which they claim has created and exacerbated local conflict.<sup>187</sup> Prior to his disappearance, Antonio Díaz stated, "Since the mine went into operation [...] it has caused division, it has led to tense encounters between social groups, and it has also led to a



series of complaints from [...] other community members [who do not have community land rights of San Miguel de Aquila]."<sup>188</sup>

In particular, the 2019 agreement exacerbated divisions.<sup>189</sup> A minority of community members believed to be aligned with the company mine imposed themselves as community representatives in violation of

- 
- <sup>180</sup> Misión Permanente de México ante la ONU y Otros Organismos Internacionales con sede e Ginebra, Suiza. (2023, March 31).
  - <sup>181</sup> Ternium S.A. (2023, April 13); and 2007 Environmental Impact Report for the Aquila Project mention the agreement.
  - <sup>182</sup> Nuño, A. (2023, January 31); and Misión Permanente de México ante la ONU y Otros Organismos Internacionales con sede e Ginebra, Suiza. (2023, March 31).
  - <sup>183</sup> Jimenez, G. (2023, October 2).
  - <sup>184</sup> Quintana Guerrero, J. (2014, March 23). Aquila: guardias comunitarias, entre la amenaza de los cárteles y la necesidad de defenderse. Retrieved from <https://desinformemonos.org/aquila-guardias-comunitarias-entre-el-plomo-de-los-carteles-y-la-necesidad-de-defenderse/>. Martínez Elorriaga, E. (2013, August 19). Intereses de la minera, causa del arresto de 45 guardias en Aquila, afirman. Retrieved from <https://desinformemonos.org/intereses-de-la-minera-causa-del-arresto-de-45-guardias-en-aquila-afirman-190813-la-jornada/>. Jimenez, G. (2023, October 2).
  - <sup>185</sup> Nuño, A. (2023, January 31). These include Carlos Zapien Díaz, Treasurer of the community of Aquila; Francisco Javier Ramos WallePrimer Secretary of the Consejo de Vigilancia and treasurer of the Lanese communal company; Ignacio Martínez de la Cruz, Secretary of the Board of Directors of the Lanese communal company.
  - <sup>186</sup> Ternium S.A. (2023, April 13).
  - <sup>187</sup> Nuño, A. (2023, January 31). United Nations Working Group on the issue of human rights and transnational corporations and other business enterprises. (2017, April 27). A/HRC/35/32/Add.2: Report of the Working Group on the issue of human rights and transnational corporations and other business enterprises on its mission to Mexico. <https://www.ohchr.org/en/documents/thematic-reports/ahrc3532add2-report-working-group-issue-human-rights-and-transnational>. United Nations Working Group on the issue of human rights and transnational corporations and other business enterprises. (2020, June 18). Report on the issue of human rights and transnational corporations and other business enterprises. para. 72. <https://www.ohchr.org/es/documents/thematic-reports/ahrc4443-report-connecting-business-and-human-rights-and-anticorruption>.
  - <sup>188</sup> Tlanesi. (2022, January 17).
  - <sup>189</sup> Ad Colima. (2022, May 25). Vecinos de la comunidad de Aquila, Michoacán se manifiestan en las oficinas Agrarias [Video]. YouTube. <https://www.youtube.com/watch?v=7br3RNljjc8&t=93s>. Nuño, A. (2023, January 31). Jimenez, G. (2023, October 2). Ternium S.A. (2023, April 13).

04-SEPTBRE. 2022  
EMPRESA MINERA "TERNIUM-LAS ENCINAS"  
Su concesión no esta por encima de los derechos de los dueños del territorio comunal: las y los indígenas.

04-SEPTBRE. 2022  
EMPRESA MINERA "TERNIUM-LAS ENCINAS"  
Dejen de entrometerse en la vida interna de nuestra comunidad Indígena, ustedes:  
Lic. Rogelio Omaña  
Lic. Julián Álvarez

04-Septbre. 2022  
Empresa minera "Ternium-Las Encinas"  
Las regalías que se reciben - sin fruto de una lucha de mas de tres meses, de comuneros y comuneras, y no del sentido social - que ustedes dicen al gobierno (no mientan señores directivos)

Sign is from September 4 2022

Mexican agrarian law.<sup>190</sup> Other community members also accuse them of acting in coordination with organized crime and corrupt state authorities.<sup>191</sup> Their actions were seen as self-interested, affecting the rights of other community members.<sup>192</sup>

As president of the Indigenous Communal Council, Antonio Díaz Valencia led a majority of community members and, together with Ricardo Lagunes Gasca, proposed a legal strategy to address the illegitimate leadership. Highly dedicated to his community, Antonio stated in 2021, "My greatest pride is always to be side by side with my indigenous brothers and sisters. I will offer all my effort, my work and my life to defend our people."<sup>193</sup>

At the time of their disappearance, Antonio and Ricardo had achieved recognition from the agrarian tribunal that the minority group was not the legitimate representative of the community, calling for new elections that would open up the opportunity to improve

collective benefits from the mine and to minimize its impacts.<sup>194</sup> They also called for federal intervention to help resolve the conflicts.<sup>195</sup> In one of his last public appearances, Ricardo explains their intention to achieve free, democratic, and legitimate indigenous elections so that the community can defend itself, and "the elected indigenous authorities can achieve better negotiations with the other involved actors."<sup>196</sup>

According to the press, prior to their disappearance on December 13, 2022, Antonio and Ricardo were allegedly threatened by representatives of Ternium Mexico.<sup>197</sup> This took place in different occasions and during a community assembly concerning environmental issues and renegotiation of agreements. Community members present at the meeting denounced to the press and to government officials that a company representative allegedly threatened to "take their life".<sup>198</sup> A month later, the two defenders were disappeared. In response, the mine was shut down for months. During this period, the majority group of community

<sup>190</sup> Ad Colima. (2022, May 25). Nuño, A. (2023, January 31). Jimenez, G. (2023, October 2).

<sup>191</sup> Martínez Elorriaga, E. (2013, August 19). Nuño, A. (2023, January 31). Jimenez, G. (2023, October 2).

<sup>192</sup> For example, the group filed numerous agrarian lawsuits against its own community. Agrarian Court #38, based in the neighboring state of Colima, has jurisdiction in Aquila and ruled against the community in 2021, ordering the incorporation of other communal members and retroactive payment of royalty payments under the 2012 agreement. Jimenez, G. (2023, October 2).

<sup>193</sup> (2021, September 30). Antonio Díaz Valencia [Video].

<sup>194</sup> Nuño, A. & Lakhani, N. (2023, January 20). Tlanesi. (2023, February 7). Antes de su desaparición, Ricardo Lagunes defendió a comuneros de Aquila ante juicios considerados ilegales [Video]. Facebook. <https://www.facebook.com/watch/?v=491124469667535&ref=sharing>

<sup>195</sup> Ad Colima. (2022, May 25).

<sup>196</sup> Tlanesi. (2023, February 7).

<sup>197</sup> Business & Human Rights Resource Centre. (2023, February 1). Mexico: Ternium Executives Allegedly Threatened Defenders a Month Before Their Disappearance, Affirm Aquila's Community Members. Retrieved from <https://www.business-humanrights.org/en/latest-news/mexico-ternum-executives-allegedly-threatened-defenders-a-month-before-their-disappearance-affirm-aquilas-community-members/> Nuño, A. (2023, January 31).

<sup>198</sup> Ibid.



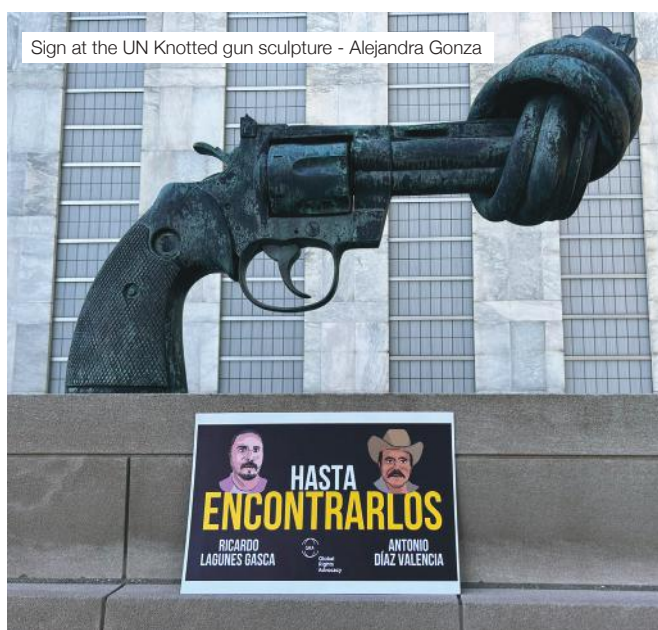
members issued a statement denouncing that the government mediator had taken sides with the company.<sup>199</sup>

In September 2023, after reported negotiations with the community, elections were held with a favorable outcome for the company.<sup>200</sup>

## Humanitarian crisis of disappearances and impunity

Since January 2023, the United Nations,<sup>201</sup> Inter-American Commission on Human Rights<sup>202</sup> and international organizations have been demanding an exhaustive search and investigation into the disappearances of Lagunes Gasca and Díaz Valencia.<sup>203</sup>

On January 19, 2023, the UN Committee on Enforced Disappearances issued an urgent action demanding that their work as human rights defenders be considered in the investigation, as well as their activities related to conflict over the mine and community representation. Seeing little result despite the international pressure, in November 2023, family members proposed the creation of an International Humanitarian Recovery Mechanism for Antonio and Ricardo (MIRHAR by its initials in Spanish)<sup>204</sup> made up of independent experts, including the



Argentinian Forensic Anthropology Team. But Mexico's Attorney General (FGR in Spanish) rejected the proposal. Since then, family members have been forging connections with collectives across Mexico who are searching for their disappeared loved ones in order to find Antonio and Ricardo, the truth of what happened and to continue denouncing the state of impunity in Mexico.<sup>205</sup>

The FGR has since assumed control of the case and two people have been arrested. Nonetheless, the whereabouts of the defenders remain unknown, and the investigation has been plagued with

- 
- <sup>199</sup> Zamora Briseño, P. (2023, June 27). Comuneros de San Miguel Aquila desconocen a mediador de Segob en conflicto con Ternium. Retrieved from <https://www.proceso.com.mx/nacional/estados/2023/6/27/comuneros-de-san-miguel-aquila-desconocen-mediador-de-segob-en-conflicto-con-ternium-309552.html>
- <sup>200</sup> Méndez, A. (2023, September 28). Nuño, A. (2023, September 25). La última foto de los defensores de Aquila. Retrieved from <https://adondevanlosdesaparecidos.org/2023/09/25/la-ultima-foto-de-los-defensores-de-aquila/>
- <sup>201</sup> UN Special Procedures. (2023, February 20). Mexico must clarify fate and whereabouts of human rights defenders Ricardo Lagunes and Antonio Díaz, and companies must collaborate: UN experts. <https://www.ohchr.org/en/press-releases/2023/02/mexico-must-clarify-fate-and-whereabouts-human-rights-defenders-ricardo>
- <sup>202</sup> Inter-American Commission on Human Rights (IACHR) (2023, January 22). Precautionary Measure No. 42-23 Ricardo Arturo Lagunes Gasca and Antonio Díaz Valencia regarding Mexico. [https://www.oas.org/en/iachr/decisions/mc/2023/res\\_1-23\\_mc\\_42-23%20\\_mx\\_en.pdf](https://www.oas.org/en/iachr/decisions/mc/2023/res_1-23_mc_42-23%20_mx_en.pdf). IACHR (2023, January 26). IACHR grants precautionary measures in favor of defenders Ricardo Arturo Lagunes Gasca and Antonio Díaz Valencia in Mexico. [https://www.oas.org/en/iachr/jsForm/?File=/en/iachr/media\\_center/preleases/2023/008.asp](https://www.oas.org/en/iachr/jsForm/?File=/en/iachr/media_center/preleases/2023/008.asp)
- <sup>203</sup> McKean, D. (2023, March 28). Carmona, S. (2023, January 18). Un abogado indígena y un líder comunitario desaparecidos en Michoacán. Retrieved from <https://vanguardia.com.mx/noticias/desaparecieron-un-abogado-de-indigenas-y-un-lider-comunal-en-michoacan-FN6069043>
- <sup>204</sup> Gonza, Alejandra. (2023, November 16). 10 months after the forced disappearance of defenders Ricardo Lagunes Gasca and Antonio Díaz Valencia. <https://es.globalrightsadvocacy.org/post/a-10-meses-de-la-desaparici%C3%B3n-forzada-de-los-defensores-ambientales-ricardo-lagunes-gasca-y-antonio>
- <sup>205</sup> Silva Rosales, M. (2024, March 22). Colectivos de Familiares de desaparecidos participarán en jornada de unidad. Retrieved from <https://diariodecolima.com/noticias/detalle/2024-03-22-participarn-colectivos-de-familiares-de-desaparecidos-en-jornada-de-unidad>;

irregularities.<sup>206</sup> The investigation also has yet to be expanded to include the possible role of state armed forces, other state officials or Ternium.<sup>207</sup> According to one family member, "The tolerance and complicity of governments send the message that this heinous crime can be committed without major consequences."<sup>208</sup>

For its part, the company has expressed its solidarity in a public statement with the families and the "affected communities"<sup>209</sup> and reported to investors that "important community leaders disappeared."<sup>210</sup> It denies any involvement, however, in what it represents as an internal community conflict. On the contrary, on February 20, 2023, when it published its first official statement, it stated that the company enjoyed a good working relationship with Valencia and Gasca, and that it was actively collaborating with the Mexican authorities.<sup>211</sup>

In its recent Annual Report, Ternium references the disappearance of Ricardo and Antonio, without naming them, stating that the "ensuing crisis forced Las Encinas to keep its main mining operation idled during the first half of 2023." The company continues, "If violence and conflict continue to increase in the regions where Ternium has its mining operations, Ternium's mining activities in Mexico may be partially or totally suspended, or even permanently shut down."<sup>212</sup>

The company has not, however, called for Antonio and Ricardo to be returned alive nor committed to a clear set of actions, much less enhanced due diligence or an internal investigation as UN experts have advised for such contexts.<sup>213</sup>



<sup>206</sup> RedTDT. (2024, January 15). A un año de la desaparición de Ricardo Arturo Lagunes Gasca y Antonio Díaz Valencia. <https://redtdt.org.mx/archivos/18737>. Nuño, A. & Lakhani, N. (2023, January 20).

<sup>207</sup> Ibid.

<sup>208</sup> Silva Rosales, M. (2024, March 22).

<sup>209</sup> Ternium (2023, January 19). Respuesta de Ternium. Previously available at [https://media.business-humanrights.org/media/documents/respuesta\\_de\\_ternium\\_19.01.2023.pdf](https://media.business-humanrights.org/media/documents/respuesta_de_ternium_19.01.2023.pdf). See also Nuño, A. & Lakhani, N. (2023, January 20).

<sup>210</sup> Ternium S.A. (2024, March 28).

<sup>211</sup> Ternium. (2023, February 20). Ternium collaborates with Mexican authorities in the case of Mr. Antonio Diaz Valencia and Mr. Ricardo Arturo Lagunes Gasca from the community of Aquila. <https://us.ternium.com/en/media/news/aquila-eng--06455353923>

<sup>212</sup> Ternium S.A. (2024, March 28). p.17.

<sup>213</sup> UN Special Procedures. (2022). A/75/212: Informe del Grupo de Trabajo sobre la cuestión de los derechos humanos y las empresas transnacionales y otras empresas. Empresas, derechos humanos y regiones afectadas por conflictos: hacia el aumento de las medidas. <https://www.ohchr.org/es/documents/report-business-human-right-and-conflict-affected-regions-towards-heightened-action>. UN Special Procedures. (2021, July). A/HRC/47/39/Add.2: Los Principios Rectores de las Naciones Unidas sobre las Empresas y los Derechos Humanos: Orientación para garantizar el respeto de las personas defensoras de derechos humanos. <https://www.ohchr.org/sites/default/files/2022-02/Formatted-version-of-the-guidance-SP.pdf>.



## Recommendations

Considering that Ricardo Lagunes Gasca and Antonio Díaz Valencia are still missing, we urge Ternium to:

- 1** Engage meaningfully with the families searching for Ricardo and Antonio and their representatives in their efforts to conform a humanitarian mechanism for the reception, storage, and preservation of relevant information to find the truth on the fate and whereabouts of the defenders.
- 2** Adopt immediately all measures available to find Ricardo Lagunes Gasca and Antonio Díaz Valencia, providing all relevant information from your finances and private security system, using your influence in commercial, political, social and security relations within the region, to collaborate with the families on the safe return of Ricardo Lagunes Gasca y Antonio Díaz Valencia.
- 3** Recognize that the enforced disappearances of Ricardo Lagunes Gasca and Antonio Díaz Valencia are due to their environment and human rights defense work in Aquila and send a public message to captors to return them.
- 4** Conduct internal investigations on Ternium's employees directly mentioned as possibly involved in threats and with strong ties with other suspects.
- 5** Perform a social, political, and economic impact assessment of the disappearance of Ricardo and Antonio on the territory, adopting as a central axis a political position aimed at eradicating violence against defenders of natural resources; and include measures for prevention, mitigation, and reparations.

# Final Recommendations

Having collated the impacts of ArcelorMittal and Ternium in four countries, the Fair Steel Coalition has provided a great deal of information on the impacts of iron and steel operations on communities who live at the fenceline of such operations, as well as broader environmental and climate impacts.

In the circumstances, the Fair Steel Coalition seeks redress and response from ArcelorMittal and Ternium, as well as investors, financiers, and relevant and responsible governments, both in general and in respect of specific operations.

We urge all relevant actors to engage with one another in respect of these recommendations and immediately initiate dialogue with affected communities, through the Fair Steel Coalition, following which, we demand that relevant actors work together to present the Fair Steel Coalition with a concrete plan to address the issues highlighted in the report, in a timely, meaningful, and transparent manner.

## **We urge ArcelorMittal and Ternium to:**

1. Engage meaningfully with the Fair Steel Coalition and set up a plan of action regarding each one of the cases we are presenting in this report, providing clear responses and a follow-up process to address the complaints and grievances highlighted by people and communities.
2. Respect international human rights standards and adopt strong and effective due diligence processes to identify, prevent, and mitigate the impacts of their business operations on the environment and human rights, as highlighted in this report.
3. Include, in the due diligence process, a cumulative environmental and human rights impact assessment of real and potential repercussions of their operations, and a roadmap centered in people and nature to implement measures to address the findings of this report. Such assessment will be led by an external group of international experts and the affected communities, with proven experience in protecting human and environmental rights.
4. Respect self-determination, the right to Free Prior and Informed Consent and fair access to shared benefits of indigenous and tribal peoples, consulting with and providing redress to all affected communities and workers.
5. Pledge to reverse climate change and reduce impacts, using the best available technology, with a commitment to a 1.5° scenario, achieving zero-emission steel production based on renewable energy and circular economy solutions.
6. Effectively recognize the universal right to a healthy and sustainable environment, ensure environmental protection and reduction of damage, by using the best available technologies and preventing, reducing, and eliminating pollution, and providing remediation.



7. Adopt a zero-tolerance policy for attacks, reprisals, violence, stigmatization and persecution against the environmental and human rights defenders, establishing safety protocols, an accessible grievance mechanism and internal investigations, given the alleged involvement of employees in the threats and violence against defenders.

**We urge Home States and Third States to:**

1. Engage with the Fair Steel Coalition to address the environment and human rights concerns highlighted in our report, and create an action plan, requesting Ternium, ArcelorMittal and the host countries to act with due diligence, establishing an action plan to prevent, mitigate and remedy harms.

2. Adopt a mandatory due diligence law, addressing access to effective remedies for human rights abuses that occur in other countries, by businesses domiciled or with significant commercial ties to your jurisdiction.

3. Institute a strong and multi-state protection policy for environment and human rights defenders at risk, especially those working on issues related to corporations domiciled in your territory, or with strong relationships to your country.

4. Follow up with and offer technical and intelligence support for all open investigations in the cases in this report, and for humanitarian recovery efforts in cases of enforced disappearances, especially in contexts of significant environmental impact and social conflict. Attend legal proceedings when requested by relevant communities or stakeholders.

5. Demand all corporations headquartered in your countries to abide by the international standards on enhanced due diligence on environment and human rights impact to identify, prevent, mitigate, and remedy harm to those linked to their activities abroad until you pass a mandatory due diligence law.

6. Condition investments in home countries to a proper response in these cases.

**To Host States:**

1. Enact legislation that includes mandatory corporate due diligence standards, in particular, the obligations to prevent irreparable harm, conduct free, prior, and informed consultation with indigenous peoples, and seek their consent from the early stages of any decision or project that may affect their territorial rights.

2. Enact legislation requiring enhanced corporate due diligence in conflict-prone or unstable regions, in alignment with UN guidelines. This should include robust mechanisms for identifying the root causes of conflicts, mapping key actors involved, and assessing the potential impact of corporate activities on exacerbating tensions or contributing to conflict.

3. Address the root causes of impunity and obstacles to access to environmental justice, and facilitate dialogue between companies, local communities, and relevant stakeholders to prevent and mitigate conflict risks.

4. Establish mechanisms to ensure effective judicial protection to prevent and remedy human rights violations resulting from natural resource extraction.

**We urge investors of ArcelorMittal & Ternium to:**

1. Require ArcelorMittal and Ternium to submit concrete action plans to address all the recommendations set out in this report and to publish annual updates on the tangible actions taken in this regard. If ArcelorMittal and Ternium fail to implement the recommendations, investors and banks should penalize existing facilities and increase the credit risk profile of each company and its subsidiaries to severely compromise any future investments and financing.
2. Systemically publish the non-commercial details of the facilities extended to ArcelorMittal and Ternium, including the environmental and social action plans and timelines, interim goals committed and achieved and the next steps for the engagement. Communicate transparently on the decisions to conclude or continue the financial engagements with these companies.
3. Adopt a transparent and accessible grievance mechanism at the parent institution level to deliver remedy, in light of the risks of adverse human rights impacts, even when high-quality due diligence processes by a financial institution are present.
4. Strengthen the investment due diligence process by engaging constructively with local communities and develop credit risk analysis that takes into consideration past and potential cases of environmental racism, violations of safety of human rights defenders, and systemic environmental impacts on an annual basis. Where risks are identified, work with affected local community members to develop mitigation and action plans which should include concrete targets and timelines. Incorporate binding environmental and social non-financial covenants in all investment and financing agreements that relate to the formulation, achievement and resolution of established action plans. Breaches by ArcelorMittal and Ternium to these covenants should result in divestment, cancellation of existing facilities or the establishment of a moratorium on potential new financial facilities.

