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Internalization Mechanisms in Ghana's Large-Scale Mining Sector: An Analysis of Socio-Ecological Impacts

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## Abstract

This empirical master's thesis examines how Ghana's integration into the global political economy structures the internalization of socio-ecological costs in large-scale mining. Drawing on world-system and dependency theories, it analyses the mechanisms through which global extractive orders are translated into local socio-ecological relations and reproduce structural inequalities.

The thesis demonstrates how territorial power, political and ideological legitimation, the peripheral imperial mode of living, and forms of slow violence are translated into concrete local governance arrangements, labour regimes, and environmental outcomes. Methodologically, the study draws on 20 semi-structured interviews, complemented by field observations conducted in the Tarkwa mining region in southwestern Ghana, a region shaped by intensive large-scale mining and significant socio-environmental impacts.

The empirical findings show how limited economic gains, such as formal employment or infrastructure investments are unevenly distributed, while cumulative burdens, including environmental contamination, land dispossession, and socio-cultural disruption remain largely externalized and politically marginalized. These dynamics reinforce Ghana's peripheral incorporation into export-oriented value chains and reproduce key contradictions of the so called resource curse.

The thesis concludes that socio-ecological justice would require independent regulation, transparent benefit-sharing arrangements, and substantive participation of affected communities. Importantly, however, such efforts remain structurally constrained without a shift away from growth-centered modernization paradigms toward post-extractivist development approaches prioritizing ecological integrity, social inclusion, and local autonomy.

**Abstract (German)**

Diese empirische Masterarbeit untersucht, wie Ghanas Einbindung in die globale politische Ökonomie die Internalisierung sozio-ökologischer Kosten im industriellen Großbergbau prägt. Auf der Grundlage weltsystemischer und dependenztheoretischer Theorien wird analysiert, über welche Mechanismen globale extraktive Ordnungen in lokale soziale und ökologische Verhältnisse übersetzt werden und dabei strukturelle Ungleichheiten reproduzieren.
Die Arbeit zeigt, wie territoriale Macht, politische und ideologische Legitimation, periphere imperiale Lebensweisen sowie Formen von *slow violence* in konkrete lokale Governance-Strukturen, Arbeitsregime und Umweltwirkungen übersetzt werden. Methodisch bezieht sich die Studie auf 20 leitfadengestützte Interviews, ergänzt durch Feldbeobachtungen in der Bergbauregion Tarkwa im Südwesten Ghanas, einem Gebiet, das stark durch intensiven industriellen Rohstoffabbau und dessen sozio-ökologische Auswirkungen geprägt ist.
Die Ergebnisse verdeutlichen, dass begrenzte ökonomische Zugewinne wie formale Beschäftigung oder Infrastruktur ungleich verteilt sind, während kumulative Belastungen durch Umweltverschmutzung, Landverlust sowie soziale und kulturelle Disruptionen weitgehend externalisiert und politisch marginalisiert bleiben. Diese Dynamiken verfestigen Ghanas periphere Einbindung in exportorientierte Wertschöpfungsketten und reproduzieren zentrale Widersprüche des sogenannten Ressourcenfluchs.
Die Arbeit kommt zu dem Schluss, dass sozial-ökologische Gerechtigkeit unabhängige Regulierung, transparente Formen der Nutzenverteilung und substanzielle Mitbestimmung betroffener Gemeinschaften erfordert, zugleich jedoch ohne eine Abkehr von wachstumszentrierten Modernisierungslogiken und eine Hinwendung zu post-extraktivistischen Entwicklungsansätzen strukturell begrenzt bleibt.

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## 1. Introduction

Few industries are as closely tied to promises of development as large-scale mining. Simultaneously, those promises have typically been accompanied by profound ecological transformations, contested governance arrangements, and socially uneven outcomes. In Ghana, gold mining in particular has played a central role in its integration into the global economy since pre-colonial times, contributing to the country's historical designation as the "Gold Coast" during European expansion (cf. Davies 2025). Today, Ghana remains one of Africa's leading producers of gold, as well as a significant exporter of manganese, bauxite, and diamonds. From the 1990s onwards, foreign direct investment - particularly from transnational mining corporations based in Europe, North America, and increasingly China - has been instrumental in financing and expanding industrial extraction. Since the 2000s, large-scale mining in Ghana has been driven by a mix of Western transnational corporations and Chinese private and state-linked companies, resulting in distinct governance logics and extraction models. These different corporate configurations play a central role in shaping internalization mechanisms, socio-ecological impacts, and community relations.

Governments and corporate actors continue to frame mining as a pathway to modernity, promising employment, economic growth and infrastructural development. However, empirical studies from the Global South increasingly question this narrative. As Landherr and Graf (2019: 45) argue, the benefits of resource extraction are largely captured by foreign companies and privileged elites, while the wider population bears the brunt of the externalized socio-ecological costs. These include ecological degradation, loss of livelihoods and long-term health risks (cf. Landherr/Graf 2021: 45f.). These dynamics raise fundamental doubts about the sustainability of development models built on extractive expansion.

Against this background, Landherr and Graf (2021) conceptualise "internalization mechanisms" as the political and institutional practices through which socio-ecological costs are absorbed, managed, and rendered invisible within peripheral regions. This thesis extends the concept by examining how such mechanisms operate not only at the corporate level, but also through societal and governance structures that stabilise extractive development trajectories.

Analytically, the thesis approaches large-scale mining as a socio-ecological process embedded in global political-economic structures. It proceeds in three steps: first, by situating mining within world-system and dependency perspectives to conceptualise internalization mechanisms; second, by examining how these mechanisms shape socio-ecological impacts and are experienced in the Tarkwa region; and third, by linking these local dynamics back to global extractive structures in order to show how internalization stabilises Ghana's peripheral position. To operationalize the overarching research question: "How do internalization mechanisms shape the socio-ecological impacts of large-scale mining in Ghana?", the thesis is structured around three sub-questions that guide the empirical and analytical sections.

1. How are socio-ecological costs internalized and legitimized in large-scale mining?
2. What impacts do these measures have on land use, ecological pollution, and labour - and how are they perceived by affected stakeholders?
3. How are internalization mechanisms shaped by global economic structures and Ghana's position in the world market?

This thesis addresses an important research gap: Although there is extensive literature on the socio-ecological impacts of mining and on CSR in Ghana, existing research rarely conceptualises these dynamics explicitly as internalization mechanisms embedded in world-system and dependency structures. Much of the Ghanaian mining literature remains either impact-oriented at the local level or focused on governance and CSR effectiveness, without systematically linking territorial power, everyday livelihoods and global extractive circuits.
This research gap is being addressed by bringing Landherr and Graf's concept of internalization mechanisms into dialogue with Ghana's large-scale mining sector, thereby offering an integrated analysis that connects corporate practices, socio-ecological impacts and Ghana's peripheral position in the capitalist world-system. Building on these theoretical foundations, the empirical analysis draws on three central conceptual approaches - territorial power, the peripheral imperial mode of living, and slow violence - to examine how extractive practices are legitimized, normalized, and materially experienced across scales. Taken together, this analytical framework connects different scales of analysis. At the macro level, the research highlights how Ghana's peripheral position in the world economy facilitates resource extraction under inequitable terms. At the micro level, it reveals tensions and ambivalences within mining-affected communities, where incremental economic gains coexist with enduring socio-ecological vulnerabilities.

The thesis is structured as follows. Chapter 2 introduces the theoretical framework, combining world-system theory, dependency perspectives, and critical extractivism to explore how extractive dynamics are embedded in broader global and historical structures. Drawing on this analytical lens, chapter 3 reviews empirical and context-specific studies on

the socio-ecological impacts of mining, governance frameworks, corporate social responsibility, power dynamics and ecological justice in Ghana. It highlights both key debates and persistent gaps in the literature. Chapter 4 outlines the methodological approach, including the qualitative case study design, data collection methods, and reflections on access and positionality during fieldwork. Building on this groundwork, chapter 5 outlines the case study sites and company backgrounds before examining the historical development of Ghana's mining sector, highlighting how past extraction patterns continue to shape present-day realities. Chapter 6 presents the core empirical findings, structured along five analytical dimensions: territorial power, working conditions of miners, corporate social responsibility, socio-ecological impacts, and cultural impacts. Chapter 7 discusses the findings across four sections, moving from the operation of internalization mechanisms to their local socio-ecological impacts, their global political-economic embedding, and an integrative synthesis. Chapter 8 then reflects on the broader implications of these dynamics, addressing governance limits, sustainability contradictions, and questions of justice. It further explores policy options and alternative models of resource governance that foreground ecological integrity and local agency, before outlining directions for future research.
Taken together, the thesis argues that internalization mechanisms do not resolve the socio-ecological contradictions of extraction but render them governable and legitimate, thereby stabilising Ghana's extractivist development trajectory.

Against this background, the following chapter develops the theoretical and conceptual framework of the thesis. Drawing on world-system and dependency approaches, it situates Ghana's mining sector within global political-economic structures and introduces the key concepts that guide the subsequent analysis.

## 2. Theoretical and Conceptual Framework

### *2.1 The Modern Capitalist World-System*

#### *2.1.1 World-System Theory and Peripheral Integration*

The World-systems theory (Wallerstein 1974, 1986) conceptualizes capitalism as an integrated, hierarchical system structured around core and periphery. This theoretical lens helps explain how Ghana's extractive sector is embedded in wider global hierarchies that shape who benefits from mining and who bears its costs. Colonial and later neo-colonial processes entrenched export-oriented extractive regimes across Latin America, Africa, and Asia (Quijano 2000; Alimonda 2011), embedding peripheral regions into roles that privilege raw-material supply and cheap labour while shifting social and ecological burdens outward (Marini 1974; Altvater 1992).

After formal independence, this international division of labour largely persisted through unequal trade and investment relations, reproducing both local and global asymmetries (dos Santos 1970; Quijano 2000; Roesler 2009; Graf et al. 2020). These structural patterns are essential for understanding the historical conditions under which Ghana's contemporary mining economy took shape.

Researchers such as Marini (1974) and Quijano (2000) build on this perspective by showing how colonial regimes established patterns of resource exploitation, including mining, through coercive labour regimes, export-oriented infrastructure, and centralized administrative control, all of which entrenched structural dependencies in newly formed states. Despite formal sovereignty, peripheral regions remained locked into commodity-export models catering to external markets, essentially reproducing patterns of global inequality (cf. Alimonda 2011; Lessenich 2016).

Under Wallerstein's schema, these asymmetries permit core states to capture disproportionate economic surplus while outsourcing or displacing the social and ecological costs - an operation that Lessenich (2016: 53ff., 96ff) has described as a core mechanism for externalizing the costs of resource extraction. The dynamics outlined above materialize concretely in Ghana's extractive sector, where historical forms of peripheral integration continue to shape present-day mining.

In Ghana, large-scale gold, bauxite, and manganese extraction exemplifies the peripheral position: export dependence exposes fiscal revenues and employment to commodity volatility and foreign-controlled investment cycles, while weak domestic linkages constrain diversification; at the same time, cumulative externalities - deforestation, land contamination, water pollution - fall disproportionately on mining-adjacent communities (Altvater 1992; Graf et al. 2020). As a result, Ghana's large-scale mining sector reflects the classic core-periphery dynamic: local communities bear the ecological and social

externalities (e.g., pollution, land displacement, precarious work) while external stakeholders - mining corporations, international investors, and wealthier consumers - benefit disproportionately from resource extraction (cf. dos Santos 1970; Altvater 1992).
Attempts to enhance value addition, through more advanced processing or technological innovation, often face structural barriers, such as foreign-dominated capital markets, technology licensing constraints, and World Trade Organization rules that favour open in periphery (e.g. agricultural sector) export regimes (cf. Frank 1967; cf. Graf et al. 2020).
From a dependency standpoint, the result is an entrenched pattern of external reliance that reinforces inequalities at multiple levels. On the national level, the government's tax revenues are highly vulnerable to fluctuations in mineral prices set by global markets (cf. dos Santos 1970; cf. Lessenich 2016). Meanwhile, at the community level, local populations experience precarious work and uncertain incomes, exacerbated by insufficient state capacity to regulate ecological impacts or guarantee labour protections (cf. Altvater 1992).
Hence, while large-scale mining may contribute significantly to Ghana's gross domestic product, it typically fails to catalyse broad-based development or reduce socio-economic disparities (cf. Graf et al. 2020).
Thus, world-system and dependency perspectives together illuminate the broader context in which Ghana's mining sector operates. They reveal why policies that promote raw materials export are entrenched, and why local resource extraction rarely translates into robust national development or equitable wealth distribution (cf. dos Santos 1970; cf. Wallerstein 1986; cf. Graf et al. 2020). This vantage point is crucial for understanding not only the structural conditions that shape modern large-scale mining, but also the specific internalization mechanisms - such as corporate influence over land, selective compensation for local communities, and the social legitimation of extractive projects - that will be examined in the subsequent sections. The global capitalist world-system, it follows, sets the stage for the organizational patterns and uneven power relations that define Ghana's place in the international mining landscape.
Together, world-system and dependency perspectives clarify why extractive asymmetries persist and why the burdens of mining remain unevenly distributed. This broader context provides the foundation for analysing the specific internalization mechanisms examined in the following section.

### *2.1.2 The Resource Curse and Neo-Extractivism*

This section links the classical resource-curse thesis - emphasizing growth-suppressing volatility, institutional erosion, and conflict (Auty 1993; Sachs/Warner 1995; Karl 1997; Ross 1999) - to the more recent debates on neo-extractivism. The latter describes contemporary state-corporate strategies that frame intensified resource extraction as a pathway to modernization, while systematically deferring or externalizing its ecological and social costs (Svampa 2015, 2016; Lessenich 2016; Gudynas 2019).

Within the neo- extractivist framework, states frequently present large-scale mining and energy projects as effective strategies for job creation and socio-economic development, aiming to legitimize extraction at both the national and local levels. The supposed benefits - from infrastructure investment to marginal poverty alleviation - become focal points in public discourse. However, the underlying dynamic typically remains externally oriented: raw materials are exported as primary commodities to global markets, while processing and value-added stages occur elsewhere (cf. Altvater 1992; cf. Lessenich 2016).

Although large-scale extraction generates revenue, it also heightens vulnerability; a phenomenon often referred to as the resource curse (cf. Auty 1993; cf. Sachs/Warner 1995). Countries endowed with abundant natural resources paradoxically experience lower economic growth, weaker institutions, and greater social conflict than might be expected given their resource wealth (Ross 1999; Karl 1997). A key aspect of this dynamic is that dependence on raw-material exports discourages economic diversification, reinforcing a neo-extractivist trajectory in which short-term fiscal gains are prioritised while socio-ecological burdens are displaced onto local communities (Sachs/Warner 1995; Altvater 1992; Svampa 2016; Landherr/Graf 2019).

As shown for Chile’s copper sector (Landherr/Graf 2022), rising export earnings can coexist with deepened ecological burdens and macro-dependence; Ghana’s gold and manganese operations display similar enclave dynamics - weak forward/backward linkages, recurrent conflicts over land, and limited community say in revenue allocation despite royalties and taxes (Auty 1993; Ross 1999; Karl 1997; Graf et al. 2020). Such outcomes exemplify the persistent interplay of a resource curse dynamic within an ostensibly neo-extractivist growth strategy.

Neo-Extractivism underscores that, despite greater state involvement, governments in peripheral economies remain embedded in global structures that privilege primary commodity exports. In Ghana, as elsewhere, alliances between political elites and transnational corporations reinforce this orientation: regulatory concessions, CSR projects, and selective employment programmes sustain extraction while offering only partial and uneven benefits to local populations (Svampa 2016; Landherr/Graf 2019). What appears as a modernized development model - promising growth, participation, and infrastructure - largely reproduces entrenched inequalities and dependency, as decision-making and revenues concentrate among narrow elites while socio-ecological burdens remain widely dispersed (Ross 1999; Auty 1993).

Within Ghana's mining regions, a neo-extractive' narrative similarly promises economic growth, foreign investment, and poverty reduction, justifying the expansion of large-scale operations. In practice, these ambitions often clash with the structural weaknesses identified in resource curse literature (cf. Sachs/Warner 1995). Evidence from local communities near gold mines echoes the Chilean examples in those corporate initiatives - ranging from infrastructure support to sporadic employment- rarely overturn deeper inequalities. Instead, political figures may be co-opted through revenue-sharing programmes or direct patronage, discouraging serious challenges to extractive projects (cf. Ross 1999; cf. Auty 1993).

Despite moderate gains, such as short-term public spending on local infrastructure, this concept tends to sidestep long-term developmental needs, including technology transfer, industrial diversification, and ecological safeguards (cf. Lessenich 2016). Essentially, Ghana's large-scale mining exemplifies how a neo-extractive approach positions peripheral countries to maintain the flow of strategic minerals (or also called "critical minerals" (OECD)) into global supply chains while deferring or diminishing acknowledgment of socio-ecological damage. For many mining communities, the resulting externalities - soil contamination, loss of arable lands, unsafe labour conditions - are normalized as a cost of modernization. In reality, these costs reflect a structural continuity with earlier extractive booms that offered marginal gains to local populations but entrenched external dependency (cf. Altvater 1992; cf. Svampa 2016).

Neo-Extractivism and the resource curse thesis jointly underscore the paradox that high-value natural endowments do not necessarily translate into sustainable, equitable development. Instead, they can reinforce core–periphery imbalances, perpetuating ecological harm and social inequity in peripheral territories. Ghana's experience with large-scale mining thus demonstrates how political narratives of modernization through resource extraction conflate short-term fiscal boosts with genuine structural transformation (Landherr/Graf 2019). Ultimately, this modernized form of extraction interlocks with deeper dependency patterns, intensifying ecological challenges and crowding out avenues for diversified economic growth. As the subsequent sections will argue, the enduring power of global capital, coupled with specific internalization mechanisms, allows these extractive regimes to persist, shaping the day-to-day realities of mining-affected communities in ways that mirror broader global inequalities.

### 2.2 Mechanisms of Internalization

Internalization mechanisms can be understood as the concrete processes through which the socio-ecological costs of extraction are absorbed by local environments and communities, while the extractive model itself remains politically and economically stabilized. Building on political ecology and critical development theory, this section specifies four interlocking dimensions of such mechanisms: territorial power, the peripheral imperial mode of living, political and ideological legitimation, and slow violence. Together, they provide the analytical lens for examining how costs are managed, justified, and ultimately sustained within Ghana's mining sector.

#### 2.2.1 Territorial Power

A defining feature of large-scale mining in peripheral contexts is the territorial power exercised by transnational corporations and allied local elites (cf. Landherr/Graf 2022). In line with Quijano's concept of the "coloniality of power" (2000), such territorial control reflects the persistence of colonial hierarchies in the organisation of land access, labour regimes, and decision-making authority. Whereas traditional analyses of extractivism emphasize export-enclave logics and the role of the state, the concept of territorial power broadens the view by showing how corporations do not merely extract resources but also shape local labour markets, infrastructural development, and public life. In places like Ghana's gold belts, mining companies often possess or control extensive tracts of land, water rights, and administrative privileges that grant them near-sovereign authority over the immediate surroundings. This constellation reflects what Landherr and Graf (2019: 47) describe as the territorial power of transnational companies through which companies dominate both material infrastructures and essential services, thereby shaping not just extraction, but everyday life in resource regions. By dominating these spheres, firms can reinforce the socio-economic dependencies that secure ongoing extraction, largely on terms favourable to corporate capital (cf. Landherr/Graf 2021; Graf et al. 2020).

Beyond formal concessions, corporate influence extends into social provisioning - clinics, roads, housing, schooling - thereby substituting or supplementing state functions and embedding firms within everyday life (Rajak 2011; Landherr/Graf 2019). Such provisioning can cultivate dependencies and patron-client ties that pre-empt contestation even where ecological or labour harms persist.

Similar patterns appear in Ghana, where foreign investors expand gold and manganese concessions under the promise of jobs and infrastructure. These processes illustrate how territorial power anchors extractivism by intertwining corporate control over land and resources with state aspirations for modernization, thereby maintaining internalization mechanisms through dependency and limited resistance (Landherr/Graf 2019, 2022).

At the same time, this territorial entrenchment secures the uninterrupted supply of strategic minerals, a dynamic that has become increasingly salient as global demand for “green” technologies rises. The broader implications of this linkage, particularly its reinforcement of territorial power, will be examined further below.

The expansion of electric vehicle industries and renewable energies requires ever larger volumes of strategic minerals such as lithium, copper, and manganese (OECD 2016). Meeting this demand strengthens corporate negotiating power, enabling firms to dictate contractual terms and cultivate alliances with local political actors (Svampa 2016; Graf et al. 2020).

Territorial power is further reinforced by promises of participation: employment, modernization, and revenue distribution. Yet such benefits remain uneven: a few secure stable wages, while many faces precarious jobs and cyclical layoffs, with local leaders often reluctant to confront corporate practices for fear of jeopardizing these limited gains (Ross 1999; Roesler 2009).

In both Chile and Ghana, corporates extend their presence into community life - funding schools, clinics, or holidays - which secures goodwill while deflecting critiques of pollution or land loss. These interventions normalize corporate authority and diffuse tensions, leaving structural grievances latent unless triggered by acute ecological disasters (Nixon 2011; Landherr/Graf 2019).

Only major accidents or visible ecological disasters occasionally convert latent tensions into overt resistance. More typically, these external “costs” of extraction are diffused over time and space, reinforcing the corporation’s de facto territorial authority (Landherr/Graf 2022).

Territorial power is reinforced by the global “green transition,” (EU 2019) which raises demand for critical minerals such as copper, lithium, and manganese. While framed as indispensable for climate solutions, extraction sites like Ghana continue to bear the social and ecological costs - land dispossession, water pollution, and health risks - illustrating what Landherr/Graf (2021) term the “unequal ecological division of labour.”

Territorial power also intersects with ecological factors. As the Global North accelerates a “green” and “clean” energy transition (EU 2019) - expanding electric vehicles, wind power, and solar panels - demand surges for metals like copper, lithium, or manganese. These resources are often labelled “critical” or “conflict” minerals because of their dual significance: they are scarce, labour- and resource-intensive to extract, and frequently located in geo-politically sensitive or conflict-affected regions such as Chile, Ghana, or the Democratic Republic of Congo (Wellmer/Sinding-Larsen 2016). At the same time, they constitute essential bottlenecks for the global green transition, making their availability and supply chain governance pivotal for sustainable technological advancements (OECD 2016).

This duality highlights an often-overlooked cost of so-called “green colonialism”, the displacement of socio-ecological burdens from core economies to peripheral extraction zones (Fairhead et al. 2012).

For peripheral regions, the result is intensified extraction and reinforced corporate leverage (Graf 2020). Even if core economies lower their own emissions and footprints, the externalities persist in mining sites: water pollution, dust emissions, dispossessed farmland, and health risks for local communities (Nixon 2011) - to say nothing of non-economic losses to culture, gender relations, or knowledge systems. The paradox is that clean-energy transitions in advanced economies deepen burdens in producing regions, perpetuating what Landherr/Graf (2021: 47) call the “unequal division of ecological labour,” where ecological costs are geographically displaced to places with least political influence.

This dynamic directly strengthens territorial power, as the rising strategic value of these minerals increases companies’ ability to secure land access, negotiate favourable terms, and impose operational priorities on local institutions. By framing their operations as indispensable for climate solutions, corporations on the resource frontier further legitimize their territorial influence, while the socio-ecological effects often receive only limited scrutiny (Svampa 2016).

Local voices - farmers, workers, Indigenous People and activists - do articulate frustration and anger over land loss, contamination, and precarious jobs. Yet corporate entrenchment in daily life fragments opposition, producing what Landherr/Graf (2022) describe as a “forced consensus” that stabilizes extractivism despite persistent grievances.

At the institutional level, these dynamics relate closely to what Lund (2006) conceptualizes as “twilight institutions”: hybrid arrangements in which corporations assume state-like functions in the provision of health, education, infrastructure or security. Such quasi-public roles reinforce territorial power by embedding companies within local governance structures, thereby stabilizing extraction even in contexts of weak formal state capacity. This meta-perspective helps explain why corporate authority in Ghana’s mining regions often exceeds the scope of formal concessions alone.

Concluding, the concept of territorial power highlights how corporations extend their influence from unprocessed mineral extraction into a broader governance role, shaping labour relations, local infrastructure, and cultural narratives that legitimize continued resource exploitation.

This multi-layered influence is reflected in what Landherr and Graf (2019: 46f.) describe as a process in which economically dominant groups assert their interests within the semi-peripheral countries - not only through formal concessions, but through the reorganization of local governance, perception and participation in the service of global capital. Whether in Chile's booming copper sector or Ghana's expanding gold or manganese mines, these corporate strategies intersect with state aspirations for modernization and the Global North's heightened commodity demand to produce a powerful synergy that safeguards extractive activities. The quasi-sovereignty that emerges allows companies to absorb socio-ecological costs within local structures - through limited social benefits or revenue-sharing - while externalizing the long-term ecological and social risks from the global production system. This mechanism effectively curtails grassroots influence, leaving questions of equitable resource distribution and ecological justice unresolved, yet integral to any rigorous understanding of extractivism in the modern capitalist world-system.

### *2.2.2 Peripheral Imperial Mode of Living*

An important aspect of the analysis of how transnational corporations legitimize extractive practices in peripheral communities is Brand and Wissen's (2017) concept of peripheral imperial life. This framework draws attention to the production and reproduction of consumption styles that, while often associated with rising affluence or modernization, are inextricably linked to the systemic externalization of socio-ecological costs. As Landherr and Graf (2019, 48) emphasise, this model functions ideologically by presenting participation in global markets as a pathway to progress, while masking the unequal exchange and ecological degradation that underpin it. By proclaiming limited material benefits and aligning with local aspirations for economic participation, corporations maintain an extractive model that perpetuates inequalities between core and periphery within the broader global capitalist system (cf. Brand/Wissen 2017; cf. Svampa 2016).
Public rhetoric often frames mining regions as "sacrifice zones" (Landherr/Graf 2022: 48) for "progress and the common good" (ibid.). Combined with incremental promises of jobs and infrastructure, this framing legitimizes extractivism even as long-term socio-ecological harms accumulate gradually and remain obscured (Nixon 2011).

Within this hegemonic frame, corporations promote a vision of participation through wages, scholarships, and consumer access, resonating particularly with aspirational groups. While some experience modest gains, most continue to face precarious labour and ecological burdens, underscoring the selective and legitimizing function of the imperial lifestyle discourse (Brand/Wissen 2017; Landherr/Graf 2019).

Selective employment and CSR programmes foster localized support while masking broader costs such as farmland loss or water contamination. These measures anchor corporate legitimacy, even though tangible benefits remain modest, and harms fall disproportionately on rural communities (Nixon 2011; Rajak 2011). In this way, the imperial way of life is socially selective and at the same time legitimizing (Landherr/Graf 2019: 48), as it allows some groups to benefit materially while ignoring the broader socio-ecological contradictions of extraction.

Although tangible benefits from mining projects often remain modest, even incremental improvements - such as scholarships, clinics, or temporary jobs - can foster what Landherr and Graf (2019: 48) call an "ideological enclosure." Within this enclosure, visions of participation and progress blunt deeper structural critique, encouraging communities to accept extractivism as inevitable. This process is reinforced by fragmented participation: while some groups access limited advantages, others continue to face precarious employment, land dispossession, and ecological degradation. The uneven distribution of benefits disorganizes collective opposition, thereby sustaining corporate legitimacy and stabilizing the extractive order.

Analogous patterns appear in Ghana's gold-mining regions, where prospective wages, educational support, and infrastructural upgrades inspire complicity among local stakeholders, even as land appropriation and ecological degradation intensify (cf. Ross 1999; cf. Altvater 1992).

Crucially, peripheral imperial living is marked by its exclusivity. While transnational corporations and certain political actors promise integration into modern consumer lifestyles, these promises materialize only for select segments of the population - often an urban middle class or political insiders (cf. Landherr/Graf 2019). The social majority, particularly marginalized or rural communities, experiences fewer benefits, less job security, and a higher vulnerability to pollution or resource depletion (cf. Marini 1974; Graf et al. 2020). Despite such inequalities, the widespread cultural narrative of extractive imperative endures, underpinned by recurring dreams of individual progress through wage labour or entrepreneurial opportunities (cf. Svampa 2015, 2016).

Moreover, branding the mining enterprise as indispensable for local modernization - through roads, hospitals, or short-term technical training - can suppress overt protest. Where conflicts arise, as in major spills, accidents, or tailings disasters, they may erupt briefly into open resistance (cf. Nixon 2011). But often, internalization mechanisms - like paternalistic local investments or repressive tactics - prevent these latent grievances from translating into structural contestation (Landherr/Graf 2022). Thus, the promise of an imperial mode of living serves as a powerful ideological bulwark, legitimizing ongoing resource extraction even under precarious or harmful circumstances.

The higher demand for copper, lithium, cobalt, and manganese encourages states like Ghana to expand large-scale mining projects (Graf et al. 2020). While global consumers celebrate reduced carbon footprints, mining communities continue to absorb the externalities: polluted water sources, hazardous dust, dispossessed farmland, and long-term health risks (Nixon 2011). Even when export revenues rise, improvements in local living standards are incremental at best, reinforcing the paradox that sustainable transitions in the Global North are underpinned by intensified burdens in the Global South.
In sum, the peripheral imperial mode of living shows how promises of integration and modernization legitimize extraction while excluding the majority from meaningful benefits. Even minimal improvements can defuse critique, leaving structural inequalities intact (Brand/Wissen 2017; Escobar 2016).

These dynamics pave the way for the next section, which examines how political and ideological legitimation complements territorial power and lifestyle discourses in sustaining extractive regimes.

### *2.2.3 Political and Ideological Legitimation*

A crucial dimension of internalization mechanisms in large-scale mining is the ability of corporate and state actors to secure political support and deploy narratives that legitimize extractive industries (cf. Landherr/Graf 2022). Observers emphasize that resource extraction does not automatically expand due to market forces alone; it also depends on political and ideological processes that systematically shift ecological and social burdens onto peripheral communities (cf. Carmody 2013; cf. Escobar 2016). As Landherr and Graf (2021: 46) stress, internalization is politically organized, legitimized and enforced, meaning that it is not a passive outcome of economic activity but actively constructed through institutional and discursive support.
In other words, political and ideological legitimation functions as the glue that stabilizes internalization mechanisms: it frames extraction as desirable, necessary, or inevitable, thereby justifying why socio-ecological costs remain localized rather than redistributed.

National governments - seeking to attract foreign direct investment or demonstrate economic progress - often grant extractive companies long-term tax advantages or lax ecological oversight (cf. Carmody 2013). These concessions reinforce an environment

where the costs of pollution, land degradation, and health risks are internalized within local communities, rather than being regulated or significantly compensated by corporations (cf. Landherr/Graf 2022). The result is a sustained - and at times legally reinforced - mechanism that allows corporations to operate with minimal accountability for the negative externalities of resource extraction.
At the same time, local political elites can form alliances with mining companies and use the obvious economic benefits of mining to their personal or electoral advantage (cf. Bechtum 2021). Such alliances can manifest themselves in corporate social responsibility (CSR) initiatives: Donations to schools, building wells or sponsoring health clinics. These visible gestures act as legitimacy resources that help the companies to anchor themselves socially and politically in the mining regions, even if structural grievances remain unresolved (Landherr/Graf 2019: 49).
Here, legitimacy works ideologically as well as materially: small but visible benefits help to mask deeper inequalities, normalizing corporate presence and reducing the likelihood of sustained resistance.

While these measures address some immediate community needs, they rarely undermine the deeper inequalities associated with resource extraction in marginalized areas. Instead, they contribute to a favourable corporate image that mitigates local opposition and perpetuates the belief that mining is essential for progress (cf. Rajak 2011). This approach is also in line with national agendas, where authorities emphasize short-term employment gains and GDP growth but gloss over the structural causes of exploitation.

On an ideological level, the longstanding narrative that commodity exports fuel modernization continues to exert influence across peripheral contexts (cf. Escobar 2016). Landherr and Graf (2021) point out that this narrative is part of a “hegemonic discourse” (ibid.: 48) that equates extraction with national progress and thus marginalizes alternative ideas of development.

Politicians and industry spokespeople frame large-scale mining as a catalyst for progress, while local communities remain dependent on the income it provides, even if job stability is precarious. This reliance effectively mutes potential conflicts around ecological destruction or social displacement (cf. Brand/Wissen 2017). Critics who contest these negative impacts are often portrayed in political and corporate discourse as opponents of development, thereby constraining the space for open dialogue about alternative economic models.
Moreover, extractives’ discourses tie national pride and identity to resource extraction, fostering a political climate in which ecological or social concerns are secondary to the

promise of external revenue and infrastructure. In Ghana, for instance, gold is historically ingrained in cultural narratives, thus imbuing mining with an air of legitimacy (cf. Carmody 2013). Over time, such discourses - amplified by global market demands - discourage local movements from challenging the entrenched status quo of extraction-based growth. When local politicians prioritise immediate fiscal gains, it becomes even more difficult to address the latent socio-ecological costs that inevitably accumulate.

Given these dynamics, corporate social responsibility takes on a *symbolic significance* well beyond straightforward philanthropy (cf. Rajak 2011). By financing public works, sponsoring local festivals, or providing technical training, corporations both project benevolence and anchor themselves politically. In many instances, these small-scale interventions create a visible corporate footprint in daily community life - one that helps deflect systemic critiques about pollution, land grabs, or precarious labour. If public discontent does erupt, it is often channelled toward pushing for more CSR or short-term concessions instead of demanding profound regulatory reforms or questioning extraction altogether (Bechtum 2021).

Thus, political and ideological legitimation operates as a linchpin in upholding large-scale mining in peripheral regions. By fusing modernization rhetoric, selective economic incentives, and CSR gestures, state and corporate actors co-construct an environment in which dissenters appear obstructive to collective prosperity, and ecological threats are overshadowed by promises of “development.” In this way, public debate focuses on how to “improve” mining outcomes, rather than whether the underlying resource-extractive model is inherently inequitable. This stabilizes the broader capitalist framework in which negative externalities are systematically internalized at local cost, securing the continued flow of raw materials to global markets with minimal disruption.

Beyond incentives and discourse, legitimation also operates procedurally: impact assessments scoped narrowly, consultation formats privileging chiefs or selected intermediaries, and grievance channels oriented toward compensation rather than structural remedy. Such institutional designs steer contention toward incremental concessions (more CSR, small payouts) while leaving core issues - land tenure, cumulative impacts, regulatory capture - largely intact.

On an ideological level, modernization narratives continue to frame resource extraction as the default route to development (cf. Escobar, 2016). By emphasizing employment and the potential for wage growth, large-scale mining projects become culturally embedded as an emblem of “progress.” Consequently, communities may find it difficult to mobilize around ecological grievances, both because of dependence on mining-related income and because discourse favouring extractivism positions dissenters as hindrances to collective advancement (cf. Brand/Wissen, 2017). This dual discourse often merges seamlessly with local political agendas that promise quick economic wins while overlooking long-term social and ecological costs (cf. Svampa, 2016).

*2.2.4 Slow Violence and Latent Conflicts*

While questions of corporate power and public discourse illuminate the mechanisms that sustain extractive industries, they only partly explain how socio-ecological harms remain underrecognized or politically contained. Rob Nixon's (2011) concept of "slow violence" clarifies why severe impacts - such as contamination of water resources or chronic illnesses from toxic exposures - can accumulate unnoticed, relegating many conflicts to a latent stage rather than triggering overt confrontation. As Landherr and Graf (2019: 49) argue, this latency is not accidental but is systematically generated by mechanisms that externalize socialized costs while minimizing their visibility.

Although other forms of violence such as direct violence, epistemic violence or symbolic violence also play a role in extractive contexts (ibid.) - for instance through the physical suppression of protests or the silencing of alternative knowledge systems - this thesis focuses on slow violence to better capture the gradual, dispersed and often invisible nature of socio-ecological harm in large-scale mining. It offers a lens to trace how damage unfolds over time and space, disproportionately affecting marginalized communities while rarely gaining the political recognition that more immediate crises might provoke.

Nixon's (2011) notion of slow violence captures gradual, dispersed harms - groundwater contamination, particulate exposure, soil degradation - that evade the spectacle of disaster and thus political urgency. Such harms disproportionately affect marginalized communities while rarely registering as crises that demand immediate redress.

Coupled with modernization narratives that valorise employment and GDP, slow violence normalizes everyday degradation as the "price of development." Grievances are channelled toward coping with immediate deficits (e.g., potable water) rather than structural causes, keeping conflicts latent unless punctuated by acute events such as tailings failures.

The slow accumulation of harm helps mining corporations deflect criticisms of unsustainable practices. Absent singular catastrophes, negative externalities manifest in subtle declines of health and livelihood prospects, which are frequently overlooked by regulators or overshadowed by more visible demands for local "development" (cf. Svampa 2016; cf. Landherr/Graf 2019). Communities, often lacking comprehensive ecological data or strong legal avenues to seek redress, remain vulnerable. If they receive intermittent benefits - jobs, CSR projects, or nominal compensation - dissent can be further fragmented.

Weak ecological monitoring and uneven access to expertise complicate causal attribution, reinforcing internalization: communities face chronic exposures such as mercury contamination from artisanal and large-scale gold mining without the data, legal support, or institutional leverage needed for sustained policy action (Ross 1999; Nixon 2011).

Scholars highlight that the prevalence of latent conflicts underscores the necessity for a broader lens in socio-ecological research (cf. Nixon 2011). Focusing solely on visible confrontations or acute disasters risks underestimating the depth and scope of everyday harm. Indeed, many local disputes are defused or never fully acknowledged precisely because slow violence rarely registers as a crisis that demands immediate resolution. This pattern aligns with the ideological legitimation of extractivism: if socio-ecological damage remains gradual, corporations can maintain a cooperative facade while communities' shoulder long-term detriments in silence (cf. Bechtum 2021).

Slow violence complements territorial power and ideological legitimation by explaining why cumulative harms rarely escalate into overt conflict: procedural deferral, fragmented benefits, and data scarcity dissipate contention over time, allowing extractive regimes to remain stable even as socio-ecological stress intensifies.

### *2.3 Conceptual Synthesis*

This section synthesizes the key theoretical arguments and brings together the main concepts discussed above to clarify how they jointly inform the analytical framework of this thesis. The theoretical frameworks outlined above illuminate how large-scale mining in peripheral economies like Ghana is embedded in global structures of inequality and legitimized locally through multiple mechanisms. World-System and Dependency Theory (Wallerstein 1974; Frank 1967; dos Santos 1970; Quijano 2000; Marini 1974; Roesler 2009) explain how colonial and neo-colonial legacies evolved into persistent asymmetries of exchange, locking Ghana into primary commodity export and external dependency (Graf et al. 2020; Lessenich 2016). The resource curse hypothesis (Auty 1993; Sachs/Warner 1995; Ross 1999; Karl 1997) and critiques of neo-extractivism (Svampa 2015, 2016; Altvater 1992; Gudynas 2019) clarify why resource abundance so often translates into volatility, rentierism, and institutional fragility rather than broad-based development.
To understand how these structural conditions are reproduced locally, the thesis draws on the concept of internalization mechanisms (Landherr/Graf 2019, 2021, 2022). Territorial power captures how corporations consolidate quasi-sovereign authority over land, infrastructure, and social services, thereby stabilizing extraction (Rajak 2011; Svampa

2016). The peripheral imperial mode of living (Brand/Wissen 2017; Landherr/Graf 2019) highlights how promises of consumer access, wages, and infrastructure embed extractivism in local aspirations while excluding the majority. Political and ideological legitimation shows how state and corporate actors co-construct narratives of modernization and prosperity, reinforced by selective CSR programmes and procedural arrangements that steer dissent into incremental concessions (Carmody 2013; Rajak 2011; Bechtum 2021; Escobar 2016). Finally, Nixon's (2011) concept of slow violence explains why cumulative harms - chronic pollution, land degradation, health impacts - remain largely invisible or normalized as the "price of development," producing latent rather than overt conflicts.

Taken together, these elements provide the analytical lens for the empirical chapters. They clarify how global hierarchies (core-periphery relations, dependency, resource curse) intersect with local stabilizing mechanisms (territorial power, imperial lifestyles, political legitimation, slow violence) to sustain extractivist regimes despite persistent socio-ecological degradation. This framework directly informs the coding and interpretation of interview material in chapters 6 and 7. In the Discussion, it is complemented by the notion of "twilight institutions" (Lund 2006), which captures how corporations assume state-like functions - provision of health, education, or infrastructure - in ways that both substitute for and undermine formal state authority in Ghana's extractive regions.

## 3. Empirical and Contextual Literature on Large-Scale Mining in Ghana

While chapter 2 set out the theoretical and conceptual lenses for this thesis, the present chapter turns to the empirical and context-specific literature on large-scale mining (LSM) in Ghana. Existing empirical scholars documents a wide range of socio-ecological impacts and governance challenges associated with mining-led development, frequently organizing these debates around distinctions between “Western” and Chinese investment models. However, a growing body of research suggests that company nationality alone offers limited explanatory power for understanding local outcomes, as regulatory environments, concession arrangements, power relations, and institutional contexts often cut across such binaries.

Accordingly, this chapter adopts a problem-centered approach and synthesizes the literature across five transversal themes: socio-ecological impacts, governance and compliance, corporate social responsibility, socio-political power relations, and ecological justice. By mapping areas of convergence, contestation, and empirical blind spots, the chapter situates the subsequent case study within the broader field of empirical scholarship and clarifies how existing research informs the analysis of internalization mechanisms in Ghana’s mining regions.

### *3.1 Socio-Ecological Impacts of Mining in Ghana*

Socio-ecological impacts constitute one of the most extensively documented yet persistently contested dimensions of large-scale mining in Ghana. A broad body of empirical research highlights how mining-related environmental change is closely intertwined with social and economic transformations in mining-affected regions, shaping livelihoods, health outcomes, and patterns of local inequality. These impacts are not experienced as isolated ecological disturbances, but as cumulative pressures embedded in everyday life in extraction zones.

In this context, large-scale mining (LSM) refers to capital-intensive, highly mechanized operations carried out by formally registered companies with substantial financial, technological, and managerial capacity, typically operating under long-term concessions (Minerals Commission 2022; Hilson 2002). In contrast, artisanal and small-scale mining (SSM) encompasses labour-intensive, low-technology operations undertaken by individuals or small groups, often with limited mechanization and, in many cases, informal or semi-formal status (cf. Amponsah-Tawiah 2011). While both forms of mining contribute to environmental degradation, the scale, intensity, and governance frameworks associated with LSM generate distinct socio-ecological dynamics that are central to this analysis.

Empirical studies consistently document that LSM in Ghana is associated with deforestation, soil erosion, biodiversity loss, and water contamination, processes that directly undermine agricultural production and rural livelihoods (Emmanuel et al. 2018; Mabey et al. 2020). For communities located near mining concessions, these environmental impacts translate into reduced access to arable land, declining crop yields, and increasing exposure to polluted water sources used for drinking and irrigation. Noise, dust, and air pollution from mining operations further degrade living conditions and contribute to adverse public health outcomes, reinforcing the everyday nature of socio-ecological harm.

At the same time, the literature emphasizes that large-scale mining in Ghana is predominantly driven by foreign direct investment, which combines capital inflows with technological and managerial expertise (Lee 2017). While such investments have generated selective benefits, including formal employment opportunities and infrastructure improvements such as roads and electricity, these gains are unevenly distributed and often short-lived (Mensah et al. 2015). Community displacement linked to concession development frequently results in the loss of farmland, altered social structures, and heightened competition over remaining resources, exacerbating social tensions and economic insecurity.

Comparative research suggests that both Chinese and European mining companies have contributed to significant ecological degradation in Ghana, including water pollution and land degradation (cf. Mensah et al. 2015). However, systematic comparative studies that disentangle differences in environmental practices across company types remain limited. Existing case-based research from regions such as Tarkwa, Ahafo, and Atiwa highlights recurring patterns of biodiversity loss, declining agricultural productivity, and long-term livelihood disruption, underscoring the cumulative and path-dependent character of socio-ecological impacts associated with large-scale mining (Agariga et al. 2021; Usman Kaku & Agyemang 2021).

While the ecological impacts of both Chinese and European mining companies in Ghana are well documented, the literature offers relatively few systematic comparative analyses that disentangle differences in environmental practices within shared regulatory and institutional contexts. Existing studies tend to emphasize outcomes, such as deforestation, water pollution, and biodiversity loss without sufficiently accounting for how concession terms, enforcement regimes, and local governance structures mediate these effects (Mabey et al. 2020; Usman Kaku & Agyemang 2021). This limitation suggests that company nationality alone provides an incomplete explanation for observed socio-ecological outcomes, pointing instead to the importance of cross-cutting institutional and political-economic mechanisms.

At the same time, studies on artisanal and small-scale mining underline that severe ecological degradation is not exclusive to large-scale operations. Research from regions such as Prestea documents extensive water contamination and soil degradation linked to artisanal mining, with long-term consequences for agricultural productivity (Mensah et al. 2015). However, the literature emphasizes that the scale, intensity, and governance embeddedness of large-scale mining produce distinct and more enduring socio-ecological pressures, particularly where foreign investment, long-term concessions, and weak regulatory enforcement converge.

While foreign investment is frequently associated with improvements in physical infrastructure, such as roads, electricity, and service provision, empirical studies caution that these benefits are often spatially concentrated around mining enclaves and do not necessarily translate into broader local development (Mensah et al. 2015). Employment opportunities linked to LSM tend to be limited in number and skewed toward lower-skilled positions, offering few pathways for long-term economic security. At the same time, the expansion of mining concessions commonly entails community displacement, loss of agricultural land, and intensified competition over remaining resources, contributing to social fragmentation and livelihood insecurity in mining-affected areas.

These socio-ecological dynamics underscore the central role of governance arrangements and regulatory enforcement in shaping how environmental and social costs are produced, distributed, and contested, a focus taken up in the following section.

### *3.2 Governance and Compliance*

Effective governance and compliance with ecological regulations are crucial for mitigating the socio-ecological impacts of mining in Ghana. Appiah and Osman (2014) point out that non-compliance among mining companies often stems from weaknesses in Environmental Impact Assessment (EIA) procedures, which fail to address broader socio-economic and public health consequences of mining investments. Although Ecological Management Systems (EMS) are recognized as critical for mitigating mining's ecological impacts, many companies conduct insufficient EIAs, leading to unchecked ecological degradation. The current EIA framework in Ghana does not adequately integrate poverty reduction or improvements in living standards into its assessment criteria, leaving important socio-ecological issues overlooked (Appiah/Osman, 2014).

Comparing Chinese and European mining practices highlights marked differences in ecological governance and social management strategies. Wegenast et al. (2019) emphasize that both Chinese and European companies in sub-Saharan Africa have caused ecological harm, including deforestation, water pollution, and biodiversity loss. However, European companies are generally subject to more robust ecological and social management practices, driven by stricter governance standards in their home countries. In contrast, Chinese companies, often motivated by cost efficiency and rapid development goals, may adopt more extractive approaches with fewer ecological safeguards (cf. Wegenast et al., 2019).

European companies tend to invest in local employment and skills development, within labour regimes shaped by contractual arrangements and regulatory oversight, which supports regional economic growth and promotes community engagement. Nevertheless, these initiatives sometimes lack sustained impact, as employment often remains limited to lower-skilled positions (Geenen, 2019). Smith (2013) and Zhao (2014) observe that European firms tend to employ and train local workers, integrating them into their operations in ways that contribute to skill-building and economic stability in mining regions. Conversely, Chinese companies often import labour, especially for higher-skilled roles, thereby reducing local employment opportunities and potentially leading to higher unemployment in surrounding communities. This labour dynamic reflects broader socio-economic disparities between Chinese and European investments (cf. Smith, 2013; Zhao, 2014).

In terms of social responsibility, Lee (2017) argues against viewing Chinese investments as monolithic, noting that Chinese state capital operates under complex geopolitical strategies that engage local political and economic systems in varied ways. This complexity results in differing levels of compliance with local regulations and variations in Chinese firms' interactions with host communities. Lee's ethnographic study, spanning six years, sheds light on the diverse strategies Chinese firms employ across Africa, revealing how state-led initiatives, market dynamics, and global competition shape these investments. While Chinese companies may engage in extractive practices focused on short-term gains, they also demonstrate flexibility in adapting to host countries' infrastructure needs (cf. Lee, 2017). While CSR frameworks exist as part of corporate governance arrangements, their implementation in Ghana often remains disconnected from local realities (Hilson/Maconachie 2019). These dynamics are discussed in greater depth in Section 3.3.

Ubink (2007) further emphasizes the role of traditional authorities, such as chiefs, within local governance structures, especially in mining concessions where power dynamics between companies and local communities are often mediated by traditional leadership. Beyond formal regulatory frameworks and corporate compliance mechanisms, governance in Ghana's mining sector is also shaped by customary institutions and locally embedded authority structures. This highlights how governance structures and traditional leadership can influence the interactions between mining entities and local communities, underscoring the importance of understanding these social dynamics to comprehend the distinct socio-ecological impacts of Chinese and European investments in Ghana.

Taken together, these governance dynamics illustrate how regulatory gaps, differentiated compliance practices, and mediated authority structures shape the uneven internalization of socio-ecological costs, a theme further developed in the following sections.

### *3.3 Development of Corporate Social Responsibility*

Within the governance landscape outlined in the previous section, corporate social responsibility (CSR) has emerged as a key instrument through which mining companies seek to manage socio-ecological risks and legitimize extractive operations.

If large-scale mining investment offers a mixed blessing, corporate social responsibility (CSR) is the tool most frequently invoked to tip the balance toward a “net positive”. While extensive literature exists on the socio-ecological impacts of mining, many studies tend to critique these effects without proposing concrete solutions. Therefore, a sizeable literature questions whether CSR in mining does more than polish reputations. Fatima and Elbanna (2023) argue that CSR is frequently employed as green-washing, enabling companies to improve their public image while continuing to operate within profit-oriented operational frameworks, without substantive changes in extractive practices (cf. ibid).

Hilson et al. (2019) trace these patterns to neo-colonial enclave models, where CSR served to contain unrest rather than improve welfare. This disparity between CSR promises and local socio-economic outcomes highlights the structural limitations within current CSR practices, especially for companies operating in historically marginalized regions. These critiques have prompted a policy-oriented strand of the literature that questions the voluntarist foundations of CSR and calls for more enforceable regulatory frameworks.

Policy scholars have responded with calls for harder rules. Cawood (2017) argues that stronger ecological and community-engagement clauses - backed by enforceable penalties - are essential if CSR is to move beyond voluntarism. He suggests that regulatory frameworks need strengthening to ensure mining companies adhere to higher ecological standards and engage more substantially with local communities. He advocates for creating new guidelines or reforming existing policies as crucial steps for fostering sustainable mining practices that truly benefit local populations (cf. ibid.).

In Ghana, the mining sector provides a salient empirical case of these limitations, as the Ghana Chamber of Mines actively promotes CSR programmes that often fall short of delivering tangible benefits to local communities. CSR activities frequently remain disconnected from the broader local economy and fail to address socio-political and ecological challenges facing mining regions. This disconnection becomes evident in the lack of sustainable livelihood programmes or genuine community engagement, despite the strong promotion of CSR by industry stakeholders (cf. Hilson et al., 2019). The limited scope of these programmes, coupled with colonial-era roots, underscores the need for transformative CSR approaches that genuinely address local needs.

The gap between promise and perception is quantified by Shubita et al. (2022), who stresses that CSR initiatives must be harmonized with local expectations and priorities to achieve real impact. In Ghana, mining companies have contributed to ecological degradation, increased costs of living, and poverty, all while promoting CSR to counterbalance these negative outcomes. Shubita's study highlights that CSR efforts frequently fall short of expectations and are perceived by local residents as unfulfilled promises. This disconnects between corporate promises and community realities further erodes trust, exacerbates tensions, and fuels social unrest (cf. ibid).

Taken together, the literature suggests that CSR functions less as a mechanism of redistribution or empowerment than as a tool of risk management and legitimacy, raising critical questions about power, participation, and representation in mining-affected communities, which are addressed in the following section.

### *3.4 Socio-Political Dynamics and Power Relations*

Beyond formal governance arrangements and corporate social responsibility initiatives, socio-political power relations fundamentally shape how mining-related costs and benefits are distributed at the local level. Beyond corporate programmes, the politics of land and authority constitute central arenas in which power is exercised and negotiated, shaping who gains and who loses from mining.

Conflicts over land ownership frequently complicate these dynamics, with traditional authorities often negotiating on behalf of their communities, balancing customary land rights against corporate interests. These negotiations frequently exacerbate existing power imbalances, disproportionately impacting artisanal miners and local populations. Luning and Pijpers (2017) reveal a detailed exploration of the political and social dimensions of mining in Africa, focusing on Keegan Resources in Ghana. Their study illustrates the complex relationships between mining companies, artisanal miners, and local governance structures, especially regarding contested mineral ownership rights. Chiefs, historically holding custodial rights over land, often find themselves negotiating with both local miners and transnational corporations, creating constantly shifting political alliances (cf. Luning/Pijpers, 2017). This intricate web of relationships is further complicated by the geological realities of the mining landscape. Their notion of “in-depth geopolitics” underscores that geological formations and power relations are deeply intertwined, particularly in contexts where artisanal and industrial miners compete over access to mineral deposits. This concept holds particular relevance in regions like Ghana, where artisanal and industrial miners frequently compete over mineral deposits. The study reveals how these factors create a fragmented governance structure, deeply influenced by historical mining practices, that shapes the distribution of socio-economic benefits (cf. ibid).

These localized power struggles also shape the design and implementation of policy instruments intended to promote inclusive development, such as local content regulations. Such complexity helps explain why well-meant “local-content” rules so often stall. Geenen (2019) expands on this by examining local content policies in the mining sector. While these policies aim to increase local participation and counter the resource curse, they are often politicized, serving as tools for political elites and foreign investors to accumulate wealth and control rents. Geenen argues that such politicization often undermines the intended benefits of these policies, resulting in exclusionary practices that favour those in power (cf. Geenen, 2019). This critique underscores the importance of viewing mining not only as an economic activity but as a socio-political process in which the distribution of extraction’s benefits and burdens is heavily shaped by political power dynamics.

A more explicit justice-oriented perspective is offered by Ayelazuno (2014), who extends these debates by foregrounding the distributive and historical dimensions of extractive politics. Ayelazuno's research highlights severe injustices faced by peasants, artisanal miners, and local communities as transnational mining companies (TNCs) continue to dominate the sector. These injustices, particularly land dispossession and ecological degradation, mirror the violent processes of primitive accumulation seen during the rise of capitalist economies in the Global North (cf. Ayelazuno, 2014). They critique the notion that extractive industries can foster sustainable development, arguing that the socio-economic consequences of mining are often ignored in favour of economic growth narratives.

Together, these studies demonstrate that mining-related outcomes are not merely the result of economic or regulatory arrangements but are produced through contested power relations that structure access, participation, and recognition - concerns that lie at the core of ecological justice debates discussed in the following section.

### *3.5 Ecological Justice*

Building on the preceding discussion of socio-political power relations, ecological justice perspectives foreground how unequal access to decision-making, enforcement, and recognition shapes the lived consequences of mining in affected communities.

Wan's Ghana-based findings foreground a central dilemma of ecological justice in mining contexts: legal safeguards often exist on paper, yet affected communities lack the territorial and political leverage required to enforce them. Wan (2013) situates ecological justice debates in Ghana's mining sector within a broader analytical framework concerned with the fair distribution of ecological benefits and burdens. This perspective highlights how Ghanaian communities' struggles against mining's socio-ecological impacts mirror larger patterns of ecological inequality perpetuated by transnational corporations. Wan critically analyses ecological justice in large-scale mining, specifically examining three communities affected by AngloGold Ashanti's operations in Obuasi. Using the framework of "justice in distribution, procedure, participation, and recognition" (Wan, 2013), the study shows how ecological burdens and political exclusion disproportionately fall on local communities. The study further illustrates how communities endure ecological degradation, land loss, and public health risks despite legislative efforts aimed at mitigation (cf. ibid). Wan's focus on procedural justice, the right to participate in decision-making emphasizes how Ghana's current regulations often fail to bring substantial improvements for local residents. Even with legal provisions, structural inequalities persist, privileging mining companies over the well-being of local communities, exacerbating social tensions and contributing to ongoing struggles for ecological equity (cf. ibid). Comparable dynamics are observed beyond Ghana, as Landherr and Graf (2019, 2022) demonstrate how mining companies in Chile consolidate control and marginalize affected communities, revealing structural patterns of ecological injustice that resonate with Ghana's continued socio-ecological inequalities.

Together, these contributions underscore that ecological justice failures in mining regions are not incidental, but are systematically produced through legal, political, and institutional arrangements, a synthesis that informs the following section.

### *3.6 Synthesis of Empirical Insights*

Overall, the literature underscores the duality of mining in Ghana: foreign investments generate infrastructure and revenue, but also entrench ecological harm, socio-ecological inequality, and dependency. Distinctions between Chinese and European firms are visible - European companies tend to comply more with formal governance standards and promote limited skill transfer, while Chinese firms often prioritise rapid expansion and cost efficiency, relying more on imported labour. Yet, these contrasts should not obscure the structural continuities. Both operate within governance contexts marked by weak enforcement, politicized rent distribution, and a reliance on CSR programmes that rarely address underlying socio-ecological problems.

Taken together, the empirical studies suggest that it is not merely the “passport” of the company that determines outcomes, but rather the broader institutional and political environment, including unequal power relations, in which concessions are negotiated, monitored, and contested. The persistence of land dispossession, precarious labour, and ecological degradation across investment types points to deeper mechanisms of dependency and internalization that stabilize extractive regimes. These insights directly inform the case study analysis in chapter 5 and frame the examination of how internalization mechanisms shape everyday realities in Ghana’s mining regions.

## 4. Methodology

### *4.1 Research Design and Approach*

This thesis employs a qualitative research design rooted in Mayring's (2019) content analysis methodology to explore the socio-ecological impacts of large-scale mining (LSM) in Ghana. This approach prioritises the lived experiences of local stakeholders and the systemic structures that shape these experiences, offering depth and context that quantitative approaches may not achieve. By focusing on qualitative insights, this research aims to uncover structural, nuanced and systemic dynamics, particularly those related to territorial power, working conditions, CSR and socio-ecological transformations.

Mayring's qualitative content analysis is a systematic approach that combines deductive and inductive category formation, allowing researchers to develop analytical categories based on theoretical concepts while remaining open to emerging themes from the empirical material. His structured methodology, particularly the three-step process of paraphrasing, generalization, and reduction, ensures transparency and reliability in data interpretation, making it a widely accepted approach in qualitative research. Given the theoretical foundation of this thesis - drawing on world-system analysis and internalization mechanisms - Mayring's method provides the necessary analytical framework to categorize and interpret interview data in a structured yet flexible manner, ensuring that empirical insights are systematically linked to theoretical discussions (cf. ibid).

The research design underwent significant adaptation to address field realities. Initially, the case study aimed to conduct a clear comparative analysis of one Chinese and one European mining company in Ghana. However, early inquiries revealed that this binary distinction was both analytically limiting and practically unfeasible. The main reasons for this lie in the corporate structures of transnational mining companies, which are often highly intertwined, as well as in the limited accessibility of key actors. Direct contact with corporate representatives, particularly at headquarters level proved unfeasible, as they remained unapproachable or uninterested in participating despite repeated attempts These challenges necessitated a methodological shift towards a broader investigation of internalization mechanisms. While this adjustment deviated from the initial research design, it ultimately enabled a more comprehensive understanding of the systemic and localized impacts of mining.

The fieldwork was conducted in Tarkwa, Ghana, a region with deep historical ties to mining and home to both artisanal and large-scale operations (see chapter 5). Tarkwa, the capital of the Wassa West District, has a long-standing history as one of Ghana's most significant mining regions. Its strategic importance, coupled with the presence of the University of

Mines and Technology (UMaT), provided an ideal setting for engaging with a diverse range of stakeholders and establishing a well-informed network of interviewees. This location also allowed for contextual observations (see photo documentation in the appendix) that enriched the analysis, linking on the ground experiences to systemic factors embedded in theoretical frameworks like Wallerstein's World-System theory and Brand and Wissen's Peripheral Imperial Mode of Living.

### *4.2 Data Collection*

The research relied primarily on semi-structured and open interviews to gather empirical data. These interviews engaged a wide array of stakeholders, including residents of mining communities, employees at LSM companies, local chiefs, NGOs, lecturers from university and government officials at regional and national level. The targeted sampling strategy aimed to ensure diverse perspectives, including those from marginalized groups such as artisanal small-scale miners and residents directly affected by mining operations. However, trust-building emerged as the most critical prerequisite for access, as the sensitive nature of topics like labour conditions and ecological degradation required careful navigation to foster openness among participants. To maintain conciseness, a summarized overview of the interview participants is provided below.

| ID | Position | Gender | Level of Education | Date of Interview |
|---|---|---|---|---|
| **Int1** | Mine Manager: Opperations | m | University degree: UMAT | 18.10.2021 |
| **Int2** | Mine Manager: Opperations | m | University degree: UMAT | 21.10.2021 |
| **Int3** | Administration manager for underground mining | m | University degree: Engineer | 21.10.2021 |
| **Int4** | Small Scale Miner | m | No educational degree | 20.10.2021 |
| **Int5** | Administration Manager | m | University degree | 19.10.2021 |
| **Int6** | Senior Mine Engineer | m | University degree | 19.10.2021 |
| **Int7** | Resident Tarkwa | f | No educational degree | 20.10.2021 |
| **Int8** | Resident Tarkwa | m | Student | 18.10.2021 |
| **Int9** | Chief of Tarkwa | m | University degree | 19.10.2021 |
| **Int10** | Technical Inspection of Mines | m | University degree: UMAT | 18.10.2021 ff. |
| **Int11** | Lecturer | m | University degree | 19.10.2021 |
| **Int12** | Lecturer | m | University degree | 01.10.2021 |
| **Int13** | Lecturer | m | University degree | 25.10.2021 |
| **Int14** | Lecturer | m | University degree | 05.10.2021 |
| **Int15** | Research Fellow | m | University degree | 15.10.2021 |
| **Int16** | Manging Director | m | University degree | 14.10.2021 |
| **Int17** | Head of Communications | m | University degree | 28.09.2021 |
| **Int18** | CEO | m | University degree | 28.09.2021 |
| **Int19** | Programme Manager: Responsible Mining | m | University degree | 25.10.2021 |
| **Int20** | Resident Tarkwa | f | No educational degree | 20.10.2021 |

*Figure 1: Summarized overview of the interview participants, with personal data removed to ensure anonymity and confidentiality. Table in author's own illustration.*

Interviews were conducted predominantly in English, the practical lingua franca for most encounters. Whenever conversations shifted into Twi, Fante or other Ghanaian languages, the researcher, being the linguistically limited party, worked with a bilingual research assistant, a local student and friend. Beyond real-time translation, he advised on etiquette and protocol, for instance when meeting chiefs or elders and Indigenous communities. This arrangement proved vital for participants who do not use English day-to-day and for culturally formal settings. To safeguard data quality, each session was followed by a debrief, ambiguities were clarified with the interviewees whenever feasible, and the bilingual transcripts underwent review before the coding process.

Fieldwork dynamics were shaped by a combination of formal introductions and informal networking. Initial and official contact with government ministries, such as the Ministry of Lands and Natural Resources (MLR) and the Ministry of Environment, Science, Technology, and Innovation (MESTI) as well at academic level through University of Ghana, facilitated subsequent connections. A pivotal moment was the establishment of a working relationship with a Minerals Commission official, who enabled site access and facilitated introductions to employees, local leaders, and residents. This collaboration proved essential for arranging interviews in a range of natural settings, including homes, offices, and active mining areas.

The case study centres on three major large-scale mining (LSM) companies operating in Tarkwa: AngloGold Ashanti and Golden Star, two transnational corporations engaged in gold extraction, and the Ghana Manganese Company (GMC), a Chinese-owned enterprise specializing in manganese mining. These companies were selected for their economic prominence in the region, their substantial socio-ecological impacts, and their role in shaping local governance and labour dynamics.

Although the selected companies differ in ownership structures and mineral types, they operate under similar institutional conditions. This provided sufficient grounds for analysing how corporate arrangements influence internalization mechanisms.

However, access to corporate representatives, particularly at the managerial level, was limited. Multiple attempts to secure interviews through official channels remained unanswered or redirected, restricting direct engagement with company executives. Consequently, the analysis primarily draws on interviews with affected community members, local workers, government representatives, and secondary sources, which provide critical insights into corporate practices and their socio-ecological implications.

While primary data formed the backbone of the research, secondary data such as scholarly literature, company reports, and contextual observations were incorporated to triangulate findings. Open and semi-structured interview guides, informed by theoretical categories like territorial power and socio-ecological impacts, provided the flexibility to capture both structured insights and spontaneous reflections.

### *4.3 Data Analysis*

All collected data were transcribed, anonymized, and analysed using qualitative content analysis following Mayring’s (2019) approach. After paraphrasing and condensing the transcripts to preserve meaning while improving clarity, interview passages were coded and assigned to five overarching categories: territorial power, working conditions, corporate social responsibility (CSR), socio-ecological impacts, and cultural impacts. These categories resulted from a hybrid coding strategy: territorial power, working conditions and CSR were deduced from the theoretical framework on corporate governance, labour regimes and internalization mechanisms, while socio-ecological and cultural impacts emerged inductively from recurrent themes in the interview material. This combination ensured analytical coherence with the conceptual framework while remaining grounded in the perspectives of interviewees.

Sector-specific differences between gold and manganese extraction were integrated into the coding process, particularly within the socio-ecological category. Large-scale gold mining in Ghana is characterised by open-pit and underground techniques combined with chemical-intensive processing (e.g., cyanide leaching), resulting in long-term risks such as water contamination, deforestation and soil degradation. Manganese extraction, by contrast, relies primarily on surface mining with lower chemical inputs but still contributes to erosion, land degradation and localised ecological harm. Following Lee's (2017) emphasis on the importance of distinguishing resource types within global extractive regimes, these differences were considered when interpreting ecological, labour-related and governance dynamics.

After categorisation, the material was synthesised to identify patterns, tensions and cross-cutting dynamics across interviews. At this stage, three guiding sub-questions for the discussion chapter crystallised, reflecting broader theoretical implications of the empirical findings. The first sub-question examines the mechanisms and legitimation of internalization processes, focusing on how companies seek to stabilise operations by managing social and ecological tensions. The second evaluates the local effects of these measures, assessing whether internalized costs meaningfully mitigate socio-ecological harms or primarily serve to maintain extractive continuity. The third situates these dynamics within Ghana's role in global capitalism, highlighting how transnational corporate strategies reproduce dependency and externalize socio-ecological risks.

By structuring the analysis in this way, the research moves beyond a descriptive account of mining's immediate effects and provides a theoretically informed interpretation of how corporate governance, state institutions and global economic asymmetries shape the socio-ecological outcomes of resource extraction in Ghana.

### *4.4 Ethical Considerations*

Power asymmetries shaped all stages of the fieldwork. As a European researcher entering a resource-strained region marked by colonial legacies and strong corporate influence, the research position involved structural privileges such as mobility, institutional backing, and external funding that could not be neutralized through formal consent procedures alone. These dynamics required heightened sensitivity, particularly because some interviewees faced potential professional or political repercussions for speaking openly.

Informed consent was obtained from all participants, who were briefed on the purpose of the study, their rights, and the measures taken to secure anonymity and confidentiality. Nonetheless, building trust remained challenging due to initial community hesitation and the persistent non-responsiveness of corporate actors. Access to mining sites and local stakeholders was facilitated through a Minerals Commission officer and traditional authorities, whose endorsement enabled entry into company premises and communities. While this gatekeeping was indispensable for field access, it also carried the ethical risk of shaping interview dynamics, for instance, by discouraging criticism in the presence or perceived influence of intermediaries.

To mitigate these risks, interviews were conducted in settings chosen by participants whenever possible, without third-party presence, and statements were anonymized in a way that prevents attribution to specific individuals, roles, or locations. Particular care was taken to avoid collecting information that could expose participants to retaliation by corporate or governmental actors. These measures ensured that the research accounted for structural power imbalances while prioritizing the safety and agency of interviewees.

### *4.5 Limitations*

This thesis is subject to several methodological and contextual limitations. First, the conversion of rich interview narratives into thematically comparable categories inevitably reduced the nuance of individual experiences and carries the risk of oversimplifying local heterogeneity. This also introduces potential interview bias: the themes most frequently articulated or most easily codified may be overrepresented, while more subtle or context-specific insights risk being underemphasized.

Second, a considerable interval separated fieldwork from final analysis. While this time enabled deeper theoretical integration, some contextual details, relationships, or temporal dynamics may have evolved or faded, affecting the immediacy of interpretation.

Third, senior corporate representatives, particularly expatriate executives declined interview requests. Their absence limits direct insight into high-level decision-making, risk management strategies, and corporate rationales behind internalization processes, resulting in a perspective shaped predominantly by community members, workers, local officials, and mid-level staff.

The researcher’s positionality also shaped the process. As a European scholar examining international mining operations in West Africa, the study was embedded in entrenched power asymmetries that could not be fully neutralised through reflexive practice alone. A postcolonial lens was applied to mitigate hierarchical assumptions, yet structural biases, cultural distance and gendered dynamics within the sector may still have influenced access, rapport and interpretation.

Taken together, these limitations do not invalidate the findings but delimit their scope and generalizability. They highlight the need for complementary research particularly studies that gain access to corporate board perspectives and long-term community follow-up to build a more comprehensive and longitudinal understanding of socio-ecological change in Ghana’s large-scale mining regions.

## 5. Ghana's Mining Landscape: History and Current Dynamics

This chapter situates the empirical case study within Ghana's broader mining landscape by outlining the historical, geographic, and political-economic contexts in which large-scale extraction unfolds. It provides the background necessary to understand how contemporary mining practices are shaped by long-standing extractive trajectories, evolving ownership structures, and Ghana's position within global commodity markets. By combining company-specific profiles with a wider historical and economic perspective, the chapter establishes the contextual foundations for the subsequent analysis of internalization mechanisms.

Section 5.1 introduces the case study sites and company backgrounds of AngloGold Ashanti, Golden Star Wassa, and the Ghana Manganese Company (GMC). The selected cases were selected for their economic significance, their contrasting ownership structures, and the range of resource types extracted within this region. While AngloGold Ashanti represents a long-established Western transnational gold mining corporation, Golden Star Wassa and GMC operate under Chinese ownership structures through distinct corporate models, allowing for comparative observations across different forms of capital organization and resource extraction.

Building on these company profiles, section 5.2 places contemporary mining operations within longer historical continuities of extractivism in Ghana. It traces how colonial and postcolonial mining regimes have shaped patterns of land use, governance, and external dependency, highlighting the persistence of extractive logics across different political and economic phases. Section 5.3 then broadens the perspective by examining Ghana's economic complexity, trade structures, and commodity dependence, situating large-scale mining within national development challenges and global value chains.

Taken together, this chapter links localized mining operations to historical trajectories and structural economic conditions, providing the contextual grounding for the empirical results presented in chapter 6.

### *5.1 Case Study Sites and Company Backgrounds*

Ghana's mining sector has played a central role in the country's political economy for centuries, shaping patterns of territorial control, labour relations and foreign investment. As one of the most resource-rich countries in West Africa, Ghana hosts extensive deposits of gold, manganese, bauxite and diamonds, attracting multinational corporations and state-affiliated companies alike. Understanding this broader extractive landscape is essential for situating the operational contexts and socio-ecological effects of the case study companies examined in this thesis. Against this backdrop, the chapter introduces the three major large-scale mining operations whose contrasting ownership structures and resource types provide a meaningful basis for the comparative analysis that follows. Before introducing the specific company cases, it is necessary to situate them within Ghana's broader geographic, historical and economic mining landscape.

Ghana's mineral wealth is concentrated primarily in the southern and central regions, where deposits of gold, manganese, bauxite, and diamonds have historically structured patterns of settlement, labour migration, and state–corporate relations. Situating the selected companies within this broader landscape illustrates how resource endowments and territorial governance intersect in the region.

Located on the West African coast, Ghana covers approximately 238,540 km² (World Bank, 2022; GTI, 2023) and shares borders with Togo, Burkina Faso, Côte d'Ivoire, and the Gulf of Guinea. Its long history of mineral extraction dating back to precolonial gold trading networks has shaped the country's economic and political development (cf. Davies 2025). Ghana became the first sub-Saharan African state to gain independence in 1957, a milestone that did little to diminish the importance of mineral exports in its national economy (cf. GNA, 2024).

Today, Ghana's population of roughly 33 million is increasingly urbanised, with more than half of all citizens living in cities. At the same time, a substantial share of the population continues to reside in rural areas where both small- and large-scale mining constitute some of the few reliable sources of cash income. Major urban centres such as Accra, Kumasi, Tamale, Sekondi-Takoradi, Tema, and Cape Coast reflect the country's diverse economic and cultural geography (cf. GSS, 2024; Geo Ref, 2024).

Ghana's most significant mineral deposits lie in the Western, Ashanti, and Eastern Regions. The Western Region, home to Tarkwa, Nsuta, and surrounding communities, hosts some of the largest gold and manganese operations in West Africa. Tarkwa and Obuasi remain central nodes of industrial gold mining, long dominated by transnational corporations such as AngloGold Ashanti and Golden Star. The Nsuta area, by contrast, is the country's primary site for manganese extraction and is operated by the Ghana Manganese Company (GMC), a Chinese-owned enterprise that integrates local production into global commodity chains.

Gold extraction continues to form the backbone of Ghana's mining economy, generating the highest export revenues and attracting sustained foreign investment. Large-scale operations in Tarkwa and Obuasi illustrate the capital-intensive, technologically complex nature of industrial gold mining, with corresponding socio-ecological implications.

Manganese extraction, centred in Nsuta, represents a smaller but strategically significant sector. While less chemically intensive than gold processing, manganese mining contributes to land degradation, erosion, and localised ecological pressures, and follows a corporate model shaped strongly by Chinese state-linked investment.

Diamonds, mostly located around Akwatia in the Eastern Region, constitute a more modest industry but maintain a longstanding artisanal mining tradition that continues to support rural livelihoods.
The concentration of mining activities in specific regions has led to distinct socio-ecological dynamics. For instance, water pollution and land degradation are prevalent issues in gold mining regions due to the heavy usage of water and land for processing. In regions like Tarkwa and Obuasi, mining-related deforestation impacts agricultural land availability, affecting local food production and biodiversity. Meanwhile, in bauxite mining areas, the displacement of communities has become a recurrent issue, as large-scale extraction often requires extensive land. These ecological and social challenges underscore the need for sustainable development strategies and comprehensive regulatory frameworks that account for regional disparities in Ghana's mining landscape.

On the way to Tarkwa, Ghana's central mining region, the landscape already bears traces of the country's extractive economy. The only main road from the coast to Tarkwa is heavily trafficked by trucks and mining vehicles. Field observations show that the road is in poor condition, marked by potholes and thick layers of dust, raising significant safety concerns for pedestrians and cyclists. The inadequate infrastructure reflects how mining activities often exceed the capacity of local public services and transport systems *(see Appendix, Figures T1–T3)*. A panoramic view from a hilltop shows Tarkwa nestled between green hills and open mining pits - visually underlining the spatial entanglement of settlements and extraction *(see Appendix, Figure T4)*.

### *5.1.1 AngloGold Ashanti*

AngloGold Ashanti, a South African-headquartered transnational corporation, operates the Obuasi gold mine in the Ashanti Region. With roots in colonial-era mining ventures, the company represents one of the most institutionalized forms of gold extraction in Ghana. After a production halt in 2014, the mine resumed operations in 2019 following major reinvestments. Obuasi is an underground mine, where ore is accessed via shafts and tunnels and processed at the surface.
AngloGold presents itself as compliant with standards such as the ICMM Sustainable Development Framework and the UN Global Compact. In 2024, it reported community investments of over USD 20 million and local procurement of USD 4.3 billion. Field observations, however, suggest discrepancies between corporate claims and local perceptions (AngloGold Ashanti, 2025).

The site features a combination of high-security access points, corporate signage, fenced areas, and checkpoints (Figure A3), reflecting the institutional separation between extraction zones and public space. Tailings ponds store chemically processed waste materials, serving as sedimentation basins yet also posing significant ecological risks (Figures A1-A7). The presence of internal infrastructure such as health centres and service areas illustrate the company's self-contained operational model.

### *5.1.2 Golden Star Wassa*

Golden Star Wassa, now owned by the Chinese Chifeng Gold Group, operates in the Wassa area in southwestern Ghana. Initially developed as an open pit mine in 2005, the site transitioned into an underground operation in 2018. Gold is extracted through blasting, hauling, and carbon-in-leach chemical processing. Although the mine holds one of the largest untapped reserves in the region, the processing plant reportedly operates below full capacity.

Golden Star's ownership structure (90% private by Chiefeng Gold Group, 10% Government of Ghana) places it between high-capacity multinational operations and more localized extraction forms. Field documentation shows a combination of corporate messaging and operational infrastructure: a relatively discreet underground entry point, a CSR banner on breast cancer awareness (Figure GS3), and on-site amenities such as a canteen and swimming pool for staff (Figure GS7). However, rudimentary wastewater drainage near the site reveals mismatches between internal corporate amenities and external ecological safeguards (Figure GS8).

### *5.1.3 Ghana Manganese Company*

Ghana Manganese Company (GMC), the only industrial manganese producer in Ghana, operates a surface mine in Nsuta-Wassa. The company is majority-owned by Consolidated Minerals Africa and has managed the mine for the past 25 years, although the site itself has been exploited for over a century. Extraction relies on open-pit methods involving heavy machinery; ore is crushed, sorted, and transported to the port without chemical processing. Despite presenting itself as a responsible operator, field observations documented extensive waste heaps, overburden dumps, and the visible ecological impacts of continuous surface mining (Figures GCM5-G7). Residential areas for workers appear modest and underdeveloped, with limited daytime activity and basic facilities (Figures GCM2-3). While GMC runs a company school, its proximity to dust-filled environments reveals tensions between development narratives and extractive realities (Figure GCM8).

One prominent feature of the Nsuta site is the railway infrastructure linking the mine to the port of Takoradi. Originally built during British colonial rule, its continued use highlights the historical continuity of export-oriented extractive logistics (Figure G4).

These contrasting company profiles illustrate the diversity of extraction models within Ghana's large-scale mining sector. While AngloGold and Golden Star follow transnational corporate models with strong CSR rhetoric, GMC exemplifies a more industrially intensive, resource-focused approach with limited community engagement. These variations set the analytical stage for exploring how territorial control, labour regimes, and socio-ecological responsibility are shaped differently across ownership structures.

#### *5.1.4 Comparative Observations*

A comparison of the three company profiles reveals structurally different extraction models that shape how socio-ecological costs are produced, managed, and redistributed. AngloGold Ashanti and Golden Star Wassa operate as transnational corporations whose activities are embedded in global financial and reporting regimes. Their strategies rely on strong CSR narratives, multi-stakeholder frameworks, and formalised labour structures, which help secure a social license to operate and maintain investor legitimacy. Yet these commitments often remain discursive, as both companies externalise substantial ecological and social risks despite comprehensive sustainability portfolios.

By contrast, GMC's state-linked, industrially intensive manganese extraction model is characterised by a narrower operational focus, lower transparency requirements, and comparatively limited community engagement. Its production-oriented strategy prioritises throughput and cost-efficiency, resulting in more immediate, spatially concentrated socio-ecological pressures and fewer compensatory mechanisms.

Across the three companies, these differences reflect distinct ownership structures, capital dependencies, and regulatory expectations. These contrasts provide a point of departure for the historical discussion in section 5.2 and, later, for the analysis of internalization mechanisms in chapters 6 and 7.

### ***5.2 Extractivism Across Historical Continuities***

The history of Ghana traces back to early African empires, specifically the influential empire that flourished near the Sahara in the western Sudan until the 13th century. While there are rich oral traditions preserved among modern Ghanaian groups, evidence of a direct lineage between this empire and modern Ghana is limited. Historical records focus predominantly on Muslim interactions with the empire and European contact with the Gold Coast beginning in the 15th century. This initial contact was significant, as it laid the foundations for Ghana's economic structure in the centuries to follow. However, linking oral traditions to archaeological findings remains a challenge for researchers, leaving gaps in the historical narrative (Emmanuel et al., 2018).

Archaeological studies, although limited, hold the potential to provide more substantial insights into Ghana's early history. It is generally accepted that many state traditions in Ghana reflect migrations occurring within the last 600 years. By the 14th century, Ghana had become a crucial convergence point for two significant streams of West African history, bolstered by the trans-Saharan trade routes. Mande traders began reaching parts of what is now Ghana by the 14th century, with Hausa merchants following by the 16th century. This interaction between local populations and traders from across the region introduced new wealth and ideas derived from the great empires of the western Sudan and the Islamic civilization spreading through North Africa.

The introduction of direct maritime trade with Europe around 1470-1482 marked a pivotal moment in Ghanaian history. As already mentioned, Ghana was known for its Gold Coast. While this nickname reflects the era's economic potential, the reality was far more complex, with significant socio-economic implications. European traders, led initially by the Portuguese, constructed fortified outposts along the coast to establish dominance and monopolize the lucrative gold trade. However, as European interests expanded, a darker chapter unfolded, the shift from gold to human trafficking with the rise of the transatlantic slave trade. This period perpetuated cycles of exploitation and human suffering that would shape the socio-political landscape for centuries (BBC, 2023).

This era was characterized by a complex interplay of economic ambitions, colonial exploitation, and the commodification of nature and human life. The violent displacement and subjugation of countless people as part of the slave trade underscored a brutal legacy that would impact the region deeply. The subsequent centuries saw the Asante Kingdom's efforts to control coastal trade, bringing them into repeated conflict with both European traders and coastal states. By the early 19th century, the British had extended an informal protectorate over the Fante states, which set the stage for the eventual colonization of the Gold Coast. In 1874, following a military expedition into Asante territory, the British declared the Gold Coast a colony, though the Asante region remained outside British control for a time (Davies, 2024).

Understanding Ghana's historical trajectory requires a broad socio-political framework that acknowledges the colonial legacy and its lingering effects on the nation's socio-economic structure. This legacy, shaped by European dominance and the shift toward a resource-extractive economy, continues to influence Ghana's economic dependencies and socio-ecological challenges today.

The colonial era in Ghana marked a significant period of political restructuring and economic transformation under British rule. British policies implemented between 1896 and 1901 led to the conquest of Asante and the establishment of a British protectorate in Ghana's northern regions. Despite the establishment of British rule, the Gold Coast, Asante, and the Northern Territories remained largely separate entities. It was not until the League of Nations mandate after World War I that the western part of former German Togoland was added, expanding the territory under British control. This integration, however, was not immediate and did not include cohesive governance across the territories, leading to complex administrative challenges and further complicating Ghana's political landscape (Konadu/Campbell, 2016).

The British applied an indirect rule approach on the Gold Coast, a strategy that provoked nationalist resistance, especially among the educated elite who sought a greater voice in governance. Despite these political challenges, the colonial economy in Ghana developed rapidly, largely driven by the expansion of cocoa cultivation in the forest regions. By the 1920s, the Gold Coast had become the world's leading cocoa producer, and its economic profile expanded further through the export of timber and manganese. This economic growth enabled the development of modern infrastructure and social services, including the expansion of transportation networks, healthcare, and education. Yet, while economic modernization progressed, political reforms lagged significantly, fostering rising tensions that culminated in civil unrest by the late 1940s (Addo-Fening, 2013).

World War II further exacerbated socio-political grievances, as the economic burden and restricted civil liberties fuelled discontent. By 1948, civil unrest escalated, prompting the British to initiate constitutional reforms aimed at transitioning power to local leaders. These reforms led to the creation of a new constitution, eventually facilitating the emergence of the Convention People's Party (CPP) under the leadership of Kwame Nkrumah. Nkrumah's party gained widespread support, particularly among the working class and rural populations, and CPP electoral victories paved the way for Ghana's independence. In 1957, the former Gold Coast officially gained independence as the Republic of Ghana, becoming the first African country south of the Sahara to do so. A United Nations referendum held in 1956 further cemented this status by integrating British Togoland, allowing Ghana to become an independent member of both the Commonwealth and the United Nations (BBC, 2023).

Following independence, Nkrumah’s administration embarked on ambitious development programmes aimed at industrializing Ghana and diversifying its economy. However, his government also pursued an assertive Pan-African agenda, forged alliances with socialist states and centralized political power moves that alienated sections of the military, traditional elites, Western governments and business interests. Combined with internal challenges, allegations of corruption and declining living standards, these tensions culminated in the 1966 military coup.

The National Liberation Council (NLC) took control, instituting conservative financial policies and promising to restore parliamentary democracy, although these promises were not initially fulfilled. In 1969, Kofi Busia's Progress Party won the general election, and Busia became prime minister, while Edward Akufo-Addo was elected president. Despite efforts to rebuild political stability, governance challenges persisted (Davies, 2024).

From the 1970s through the early 2000s, Ghana experienced alternating cycles of military rule, constitutional reforms, structural adjustment programmes, and gradual democratization, which reshaped the role of the state and deepened the country’s economic dependence on export-oriented industries such as cocoa and mining.

In recent years, the Ghanaian government, led by President Nana Addo Dankwa Akufo-Addo, has introduced policies aimed at economic diversification and social welfare improvements. One of the administration’s hallmark achievements was the implementation of free senior secondary education in 2017, reflecting a commitment to expanding educational opportunities. Additionally, a programme was launched to establish at least one factory in each of Ghana’s districts, aiming to promote industrialization and local job creation. However, the economic progress achieved during the early years of Akufo-Addo’s tenure faced setbacks in 2020 due to the COVID-19 pandemic, which significantly impacted key exports such as oil and cocoa. Efforts to address corruption also faced challenges, as evidenced by the resignation of a special prosecutor appointed to combat corruption, citing political interference (Davies, 2024).

In examining Ghana's colonial legacy and subsequent path to independence, it is evident that the political and economic structures established under colonial rule have had lasting impacts. The reliance on export-oriented industries like cocoa and mining, established during the colonial era, has shaped Ghana’s economy and reinforced its position within global economic systems as a provider of raw materials. The ongoing legacy of these colonial structures, coupled with recent efforts to diversify the economy and address socio-political challenges, reflects the complex interplay between historical influences and contemporary development goals in Ghana. However, the capacity to transform these structural conditions remains constrained at the nation-state level. Ghana's position within global commodity chains, reliance on foreign investment, and exposure to external market fluctuations limit the scope for redistributive or transformative reforms.

### *5.3 Economic Complexity: Trade, Commodities, and Development Challenges*

Ghana's economy relies significantly on exports of cocoa, gold, and sawn wood, with key trade partners in the European Union, India, and the United Arab Emirates (cf. Davies 2025). These exports contribute to the nation's foreign exchange earnings, with gold alone accounting for a substantial share of Ghana's GDP and export revenues. As one of the world's leading producers of cocoa and gold, Ghana occupies a unique position in global commodity markets.

However, the high concentration of export earnings in a small number of primary commodities also reflects Ghana's vulnerability to global price fluctuations and external demand. This limited diversification remains a major structural constraint on long-term economic resilience.

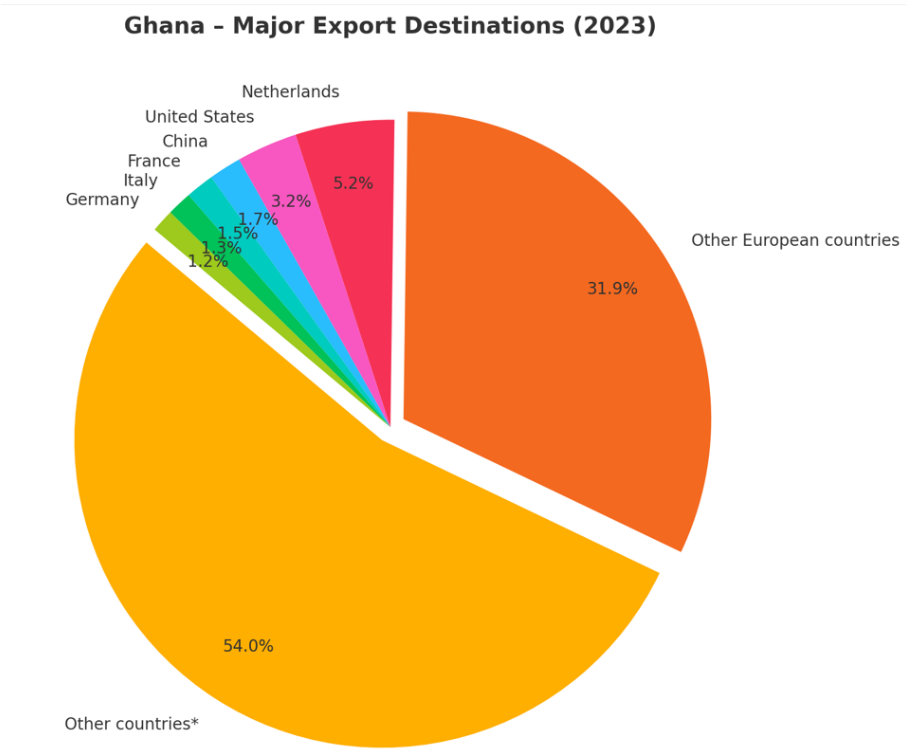


*Figure 2: Ghana's Major Export Destinations 2023. Table in own design, based on cf. Davies 2025: URL: https://www.britannica.com/place/Ghana/Resources-and-power.*

The import structure of Ghana further underscores its integration into the global economy. Predominantly importing petroleum products, machinery, and food items, Ghana relies heavily on foreign suppliers to meet its domestic needs. China stands as Ghana's largest import partner, supplying 18.2% of total imports. The United States follows at 9.4%, the United Kingdom at 6.6%, India at 5.6%, Belgium at 5.1%, and Turkey at 4.5%. South Africa also contributes 3.4% to Ghana's imports, with other countries making up the remaining 47.2% (cf. ibid.). The imbalance between a narrow export base and a diversified, import-heavy consumption and production structure illustrates Ghana's structural dependence on external markets for both revenue generation and essential goods.

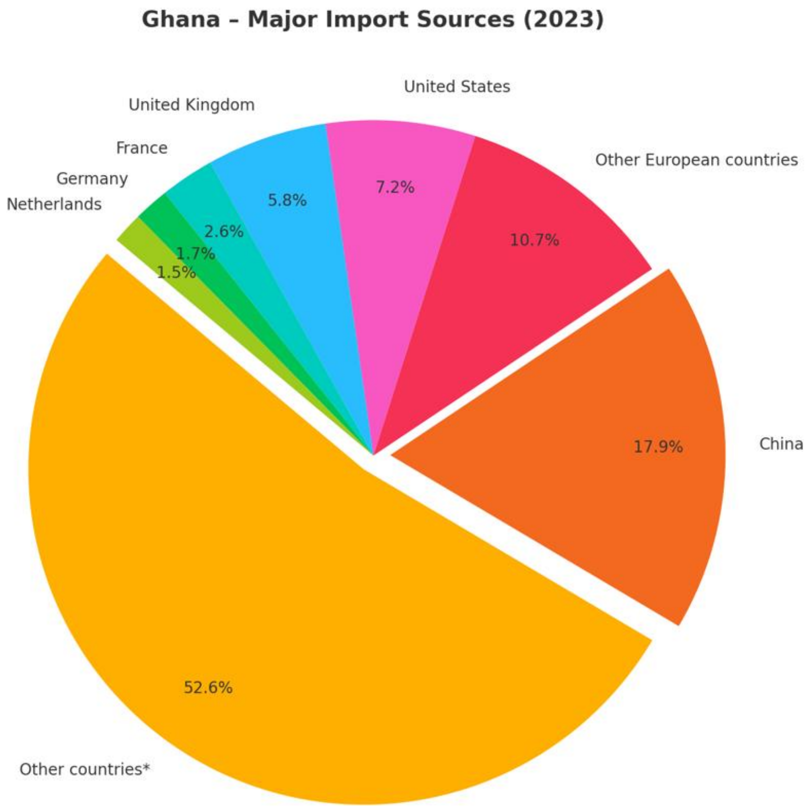


*Figure 3: Ghana's Major Import Sources 2023. Table in own design, based on cf. Davies 2025: URL: https://www.britannica.com/place/Ghana/Resources-and-power.*

The mining industry, a central pillar of Ghana's economy, is crucial not only for its contributions to export earnings but also for employment and infrastructure development. Gold mining, in particular, has attracted substantial foreign investment, primarily from Chinese and European companies. Ghana's rich mineral deposits have made it one of Africa's top gold producers, alongside South Africa. However, the reliance on gold exports also makes the economy vulnerable to fluctuations in global gold prices. This exposure limits the government's fiscal autonomy, as external shocks can rapidly affect public revenues, foreign exchange reserves, and budgetary stability.

In addition to gold, Ghana has deposits of bauxite, manganese, and diamonds. The mining sector has contributed to certain forms of regional economic activity, particularly through employment opportunities and the development of basic infrastructure in communities where operations are based. However, these benefits remain uneven and are often accompanied by significant socio-ecological costs including land degradation, water pollution, and community displacement. Addressing these issues remains a key challenge for Ghana, requiring a balanced approach that ensures economic benefits without compromising ecological sustainability and local livelihoods. Efforts to diversify the economy beyond raw material exports have so far produced incremental results, highlighting the limited policy space available to a resource-dependent state embedded in global commodity chains.

In summary, Ghana's economic structure remains characterized by a narrow reliance on primary commodity exports, high exposure to external market fluctuations and a persistent dependence on imported goods and foreign investment. These dynamics reinforce structural vulnerabilities and limit the scope for meaningful economic diversification or transformative development policies.
Against this backdrop, the following chapter turns to the empirical findings from the Tarkwa mining corridor, examining how these macro-level dependencies materialize in everyday practices of extraction, corporate governance and community experience. Chapter 6 presents the results along five analytical dimensions that illuminate how internalization mechanisms shape socio-ecological realities on the ground.

## 6. Results

This chapter presents the empirical findings of the study, structured along five analytical dimensions: territorial power, working conditions, corporate social responsibility (CSR), socio-ecological impacts, and cultural impacts. These categories capture how different stakeholders in the Tarkwa mining corridor perceive and experience corporate practices, governance arrangements and the socio-ecological consequences of large-scale mining. Although the findings are presented along thematic categories rather than company profiles, differences between the three mining operations (AngloGold Ashanti, Golden Star Wassa, and GMC) are reflected within each analytical dimension where relevant. This approach avoids redundancy and allows for a clearer comparison of mechanisms across firms.

The first section examines territorial power, including concession rights, the exclusivity of large-scale mining licenses, and the negotiation of authority between state institutions, traditional leaders and foreign corporate actors. The second section outlines the working conditions within large-scale mining, focusing on labour regimes, subcontracting practices, and health and safety risks. The third section analyses CSR initiatives, highlighting both their stated objectives and stakeholder perceptions of their effectiveness. The fourth section presents socio-ecological impacts such as pollution, land degradation and displacement. Finally, the fifth section discusses cultural impacts, including shifting land stewardship, community transformations and local responses to extractive pressures.

While the chapter aims to present findings descriptively, some analytical framing is unavoidable given the political nature of extractive processes. Nevertheless, the systematic theoretical interpretation of these findings is reserved for chapter 7.

### *6.1 Territorial Power*

Territorial power is a critical factor in understanding the socio-ecological dynamics of large-scale mining in Ghana. The interviews reveal a complex interplay between state authority, traditional leadership, and foreign investors, highlighting how control over land and resources is exercised, negotiated and maintained through various internalization mechanisms. This aligns with theoretical insights from Landherr and Graf (2022), who argue that extractive industries in the Global South systematically internalize socio-ecological costs to the benefit of foreign actors and local elites, while legitimizing their operations through promises of modernization. Brand and Wissen’s (2017) concept of the Peripheral Imperial Mode of Living further contextualizes this system by illustrating how consumer lifestyles in the Global North and selective material benefits in peripheral regions legitimize these dynamics.

*Ownership and Concession Rights*

A dominant theme across the interviews is the concentration of ownership and concession rights in the hands of foreign investors, particularly Chinese companies. A worker explained: "Ghana holds 10% […] China 90%" (Int1_GMC_01:45).

This statement underscores the significant and disproportionate foreign stake in mining operations, with Ghana retaining only a minority share with limited control over decision-making. Although foreign companies fulfil formal obligations such as royalties and corporate taxes (cf. ibid), these financial contributions do not compensate for the substantial externalization of territorial power. This externalization is further exacerbated by institutional fragmentation, as noted by a respondent: "Chiefs effectively own the land in Ghana, about 80%; the state owns only about 10%. So, local authorities must coordinate with traditional rulers. But there's often tension, each claiming authority" (Int15_UniGhana5_26:05).

This dual governance system, where customary land ownership conflicts with state-controlled mineral rights creates persistent tensions that companies exploit to secure concessions (cf. Int12_UniGhana2_08:00; Int13_UniGhana3_11:30).

Moreover, the historical continuity of mining concessions further reinforces entrenched corporate authority. One participant remarked:

"It's been in operation 105 years […] transitions from Africa Manganese to Ghana National Manganese to GMC…" (Int1_GMC_05:09).

This illustrates the resilience of mining corporations through political and economic transitions, facilitated by favourable concession agreements and regulatory frameworks. Tax incentives provided to foreign investors also ensure sustained dominance (cf. Int2_Golden_00:15:40). Ultimately, while Ghana retains a symbolic stake in these ventures, substantive control lies with external actors prioritizing profitability over community well-being.

*Exclusive Rights and Limited Local Competition*

The exclusivity of mining rights further consolidates territorial power. As one interviewee noted: "There is minimal local competition […] only manganese extractor" (Int1_GMC_10:12).

This lack of local competition enables large-scale mining companies hold quasi-sovereign authority, monopolizing resource extraction within their designated territories. The Minerals and Mining Act provides a regulatory framework that grants large-scale operators significant autonomy, with minimal local oversight:

"Everybody can come in and have a license, as per the Minerals and Mining Act, and they pay dividends. We, the Commission, see if obligations are satisfied. But effectively, the license allows them to operate with minimal local input" (Int10_MC_02:10).

Such exclusivity marginalizes smaller, community-based mining operations and reinforces the dominance of established corporations (cf. Int1_GMC_10:12; cf. Int10_MC_00:02). By concentrating control within a few dominant players, the regulatory environment supports the externalization of socio-ecological costs onto local communities.

*International Ownership Structures*

The global ownership of mining corporations introduces additional layers of complexity to territorial power dynamics. A respondent explained: “La mancha [former name of the mine] is a business […] That business is owned by an Egyptian […] That’s why the headquarters is now in London.” (Int2_Golden_00:15:00). This statement illustrates how international ownership structures allow mining companies to leverage global networks and regulatory environments to sustain their territorial authority. By relocating headquarters to financial hubs like London, companies can optimize tax benefits and operational efficiencies, thereby maintaining control over mining concessions in Ghana. Such practices like tax holidays align with state policies offering incentives, as noted: “If it is a new business altogether then the new business by Ghana law it goes to certain tax holiday […] part of the incentives for you to bring your capital to invest.” (Int2_Golden_00:15:40). This global connectivity enables companies to maintain territorial authority in Ghana while evading stricter local obligations.

Similarly, Interview Int16_Dav illustrates how real control over concessions often remains external despite nominal local participation: “A big question is who actually owns and runs these concessions. Concessions get flipped; local owners might have small shares, while real control is external." (Int16_Dav_24:00). These dynamics demonstrate how global mining corporations maintain territorial power through strategic relocations and regulatory arbitrage.

*Power Structures Within Communities*

The internal governance structures of mining communities reflect hierarchical dynamics that diminish local autonomy. *Photographs of the chief’s residence with women gathered at its entrance (see: Picture T6) and the construction of a new community centre functioning as the primary gathering point of the village (see Picture T7) illustrate the spatial and social centrality of these institutions within community life.* Chiefs, as traditional leaders, play a symbolic role in land governance, but their authority is often overridden by state decisions, as a chief explains: “When the mining companies come to acquire land, we the chiefs are not the ones giving the authority; the central government says: ‘This place has been given out,’ then they come to introduce themselves.” (Int9_Chief_00:09).

This statement highlights the tension between traditional customary land rights and centralized state authority. On the one hand, it illustrates the diminished role of customary authorities, as land decisions bypass local consultation. Although chiefs hold cultural significance and act as intermediaries, their influence is limited in formal decision-making processes (cf. Int4_SSM_09:20–09:40; Int12_UniGhana2_08:00). The ultimate decision-making power rests with the central government.

Furthermore, the co-optation of traditional leaders into corporate structures compromises their ability to advocate for community interests: "Some local chiefs sit on the boards of these mining companies - like the chief of Bonsai with Ghana Manganese. In effect, it compromises them from strongly advocating for the community" (Int14_UniGhana4_38:45). Institutional fragmentation exacerbates these challenges, creating gaps in governance that companies exploit, as noted: "Municipal assemblies, the Mineral Commission, and local leaders each have mandates. But often, no single actor effectively enforces them. Everyone shifts the responsibility around" (Int14_UniGhana4_45:00).

This lack of cohesive oversight enables mining companies to take advantage of regulatory ambiguities and assert territorial dominance. In the absence of a unified enforcement mechanism, companies are able to maintain control over mining territories with minimal local resistance. This fragmentation of authority, between customary leaders, municipal assemblies and central state institutions, creates governance gaps that companies strategically exploit. With no single actor able or willing to enforce oversight, traditional authorities become symbolically important but politically sidelined, while state agencies remain overstretched or disengaged. This vacuum allows companies to entrench territorial dominance, shifting decision-making upwards and outwards while containing dissent locally. As a result, community autonomy is weakened, accountability becomes diffused, and socio-ecological costs are more easily internalized within local spaces.

*Institutional Contradictions and Conflicts*

Conflicting claims of land ownership and governance structures between the state and traditional authorities further complicate territorial power dynamics. A participant explained: "The constitution invests minerals in the President on behalf of Ghana; but at the same time, families and chiefs hold the land itself - so there's a direct clash." (Int12_UniGhana2_08:00). This dual system inherent contradiction between constitutional provisions and customary land ownership with companies navigating these overlaps to secure concessions creates friction and power struggles allowing mining companies to exploit institutional overlaps to their advantage (cf. Int13_UniGhana3_11:30). While the state legally controls mineral rights, traditional authorities manage land based on ancestral trusts.

Additionally, state enforcement often overrides local authority, as seen in Interview Int8_Resident_Tarkwa: “But now the government invades, just push the chiefs away and do it. Yesterday, there were soldiers… if you don’t bring the soldiers, they [local miners] won’t stop” (Int8_Resident_Tarkwa_00:17).
This militarized approach by the central governments dominance, resulting in power struggles between with local authorities and communities, often leaving communities with reduced autonomy and limited ability to contest territorial claims (cf. ibid).

In sum, the findings reveal that territorial power in Ghana’s LSM sector is shaped by entrenched hierarchies, fragmented governance and externally driven control over land and resources. These dynamics closely align with theoretical perspectives on extractive industries, demonstrating how internalization mechanisms consolidate corporate authority while embedding socio-ecological costs within local communities.

### *6.2 Working Conditions of Miners*

The working conditions in Ghana’s large-scale mining (LSM) sector reflect a complex interplay between formal employment structures, externalized labour costs, and mechanisms designed to maintain workforce stability and maximize productivity. Compared to LSM, artisanal small-scale mining (SSM) presents a markedly different reality, characterized by informality, precarious livelihoods, and the absence of social protection. Interviews with traditional small-scale miners indicate that many operate without official permits, leaving them vulnerable to eviction by state agencies or forced removal by the police.
Field observations in Tarkwa (see Pictures T9–T15) document the physical and social conditions of SSM sites. These operations are often located in remote valleys accessible only by gravel roads, with clear signs of foreign involvement, such as shipping containers marking sites under Chinese control (see Picture T9). This juxtaposition of foreign oversight and rudimentary working conditions underscores the asymmetrical power relations within the sector. Pools of untreated wastewater are a common feature, posing acute ecological and health risks for both miners and surrounding communities (see Picture T10).
Processing areas typically lack safety infrastructure, with miners exposed to dust, unstable terrain, and hazardous substances such as mercury and cyanide during manual excavation, washing, and chemical treatment (see Pictures T11-T12). Equipment is often rudimentary, offering no protection against occupational hazards. Daily routines involve direct contact with contaminants: miners were observed washing themselves and their clothing at worksites with untreated water from hoses, in the absence of decontamination facilities (see

Picture T13). Ecological protection measures are minimal, consisting of loosely placed sandbags to redirect wastewater and thin barrier tape as the only warning sign (see Picture T14).

The ecological toll of these activities is visible in barren landscapes, polluted water bodies, and the absence of vegetation (see Picture T15). As large-scale operations expand, small-scale miners in such contested zones face an ongoing threat of displacement, compounding their economic and social vulnerability. These precarious working arrangements also have direct implications for health and safety, an area where the contrast between LSM and SSM is particularly stark.

*Health and Safety*

Health and safety remain key concerns in the LSM sector, with companies implementing measures to address occupational risks and regulatory compliance. Workers and their dependents benefit from annual medical checkups, which are considered a fundamental aspect of maintaining labour productivity and worker satisfaction. As one respondent explained: "Everybody is entitled to free healthcare… also your dependents, wife, children… we also do an annual medical surveillance for each worker" (Int6_Anglo2_00:29).

These protocols demonstrate the internalization of health-related social costs, ensuring that companies retain a physically capable workforce while addressing regulatory and reputational obligations. Additional measures, such as random drug and alcohol testing and fatigue management systems, highlight the sector's focus on risk mitigation (Int6_Anglo2_00:31).

However, despite these efforts, workplace accidents remain a significant issue, as evidenced by cases of severe injuries like hand amputations, vehicular collisions, and hospitalizations (Int1_GMC_31:10). Such incidents underscore the inherent dangers of mining operations, where the costs of physical harm are often externalized to the individual workers and their families. In so called informal SSM, the risks are even more pronounced. Workers operate under precarious conditions, relying on rudimentary techniques such as hand-dug pits without any formal safety measures. A participant described this reality succinctly:

"It's mostly hand-dug pits… People go search for gold themselves, no [formal] safety measures [for small scale miners]" (Int8_Resident_Tarkwa_Implied at 00:14).

Moreover, the ecological impacts of mining exacerbate health challenges for both workers and nearby communities. Dust and air pollution contribute to respiratory diseases, further externalizing the costs of mining onto vulnerable populations (Int9_Chief_00:14). These disparities between formal and informal operations reveal a dual system where safety and health protections are inconsistently applied, often based on the economic priorities of the companies involved.

At the GMC mine's entrance (GCM 1), COVID-19 prevention measures such as wearing masks and maintaining distance are displayed. While such precautions address immediate health risks, long-term hazards like exposure to dust, toxic chemicals, and heavy metals remain persistent threats to workers' well-being. Signs all around the mining area (see Picture GCM 1). Across the mining area (see Picture GCM 2-4), signage conveys a mix of occupational safety and ecological stewardship messages, with slogans such as 'Protecting the environment is a shared responsibility', 'Here we care for safety and the environment', 'A happy family, a happy lifestyle, a happy environment', 'Protect animals - don't drive over them', or 'No mobile device use while working'. While such statements project a culture of care and responsibility, their implementation on the ground appeared uneven. Field observations indicated inconsistent adherence to personal protective equipment use and limited dust suppression measures, leaving workers and surrounding communities exposed to persistent health and ecological hazards. This discrepancy suggests that corporate safety and ecological commitments often remain at the level of symbolic communication rather than being fully embedded in operational practices.

*Pay and Benefits*

The LSM sector provides a structured and tiered wage system, with salaries ranging from $800 for entry-level roles to over $4,000 for senior supervisory positions (Int2_Golden_00:30:00). This stratification is further elaborated through job categories:

"We have categories: from A to I. Somebody like an artisan is on C, an excavator operator on E, a senior supervisor on I" (Int1_GMC_00:25:00).

This structured approach reflects an attempt to reward skill and experience, but it also reinforces hierarchies that create tension among workers. Local employees often feel marginalized compared to expatriates, who receive significantly higher benefits. For example, expatriate workers receive child allowances of $30,000 per child, while local workers are provided only $2,400 for two children (Int2_Golden_01:03:00). A respondent highlighted the union's inability to address these inequities effectively:

"We do have a union, but it can't do much about the difference in child allowance: local staff get 2,400 dollars for two kids, the expats get 30,000 per child" (Int2_Golden_00:31:00–00:33:00).

Beyond wages, companies offer various benefits to incentivize workers and reduce turnover. These include free meals, annual and maternity leave, and housing allowances. Workers receive up to 36 days of annual leave, with maternity leave extending for three months (Int1_GMC_00:39:00; Int2_Golden_00:33:00). Additionally, perks like free meals and Christmas hampers contribute to morale and worker retention:

"When you come to work, there's free food… you can eat two or three times, plus monthly hamper… a Christmas hamper if we exceed certain targets" (Int6_Anglo2_00:33).

These benefits illustrate the internalization of social reproduction costs, as companies absorb some of the financial burdens typically borne by workers. However, such provisions remain inconsistent and often fail to address deeper systemic inequalities.

| Designation | Department | CAT | Salary |
|---|---|---|---|
| Excavator Operator | Mining | E1 | $924.83 |
| Dump Truck Operator | Mining | D1 | $868.84 |
| Bulldozer Operator | Mining | D1 | $868.84 |
| Grader Operator | Mining | D1 | $868.84 |
| Dump Spotters | Mining | C1 | $789,84 |

*Figure 4: Monthly salaries in USD for fixed-contract employees at Chinese-owned manganese company, categorized by role. Excavator operators receive the highest wage at $924.83, while dump spotters earn the lowest at $789.84. The uniform salaries for dump truck, bulldozer, and grader operators ($868.84) highlight standardized pay structures within similar operational categories. Data (2021) received from anonymous university employees in the mining area in Tarkwa.*

### *Shift Schedules and Work Hours*

The continuous nature of mining operations requires demanding shift schedules that prioritise productivity but often strain workers physically and mentally. Most miners follow a rotating shift system, such as three days of day shifts, three nights, and three days off:

"They do three days, three nights, then three off… 24/7… we just keep going" (Int1_GMC_35:40).

This relentless cycle is designed to ensure 24/7 extraction but can lead to fatigue and long-term health issues. In response to worker dissatisfaction, some companies have modified shift patterns to improve work-life balance. For instance, a revised schedule allowed workers more time with their families, resulting in greater satisfaction:

"We used to do 3 days day, 3 days night, 3 off, but changed to let them be with families… that made the workers very happy" (Int5_Anglo1_00:26).

In contrast, informal miners often face even longer working hours without the structured rest periods typical of LSM operations. This reflects the externalization of labour costs in informal settings, where workers bear the brunt of the physical and economic demands of mining (Int5_Anglo1_00:15–00:20).

*Union Representation and Collective Bargaining*

Unions play a critical role in advocating for workers' rights, particularly in securing wage increases and negotiating benefits. One respondent noted that annual union negotiations led to a 7% salary increase in a recent cycle (Int5_Anglo1_00:29). However, the union's ability to address systemic issues such as wage disparities and job precarity remains limited. For instance, during company shutdowns caused by fluctuations in global commodity prices, unions struggled to secure compensation for affected workers. A participant explained:

"We had to shut down… for about three months… no salary… everyone was told to go home" (Int1_GMC_51:30).

Such incidents highlight the vulnerability of workers to global economic forces, even within structured LSM environments. While unions provide a platform for collective bargaining, their influence is often constrained by broader systemic and market dynamics.

*Subcontracting and Employment Stability*

Subcontracting is a prevalent practice in the LSM sector, accounting for approximately 20% of labour in tasks such as maintenance and blasting (Int1_GMC_26:50). This arrangement allows mining companies to externalize labour costs and liabilities, as subcontractors often operate under less stringent regulations. One respondent explained:

"Some subcontracting in large-scale mines ends up shaping day-to-day pay and safety, with the main corporation disclaiming responsibility for conditions" (Int12_UniGhana2_20:00).

This practice not only reduces labour costs for corporations but also exacerbates job precarity for local workers. Short-term training programmes, followed by abrupt layoffs, illustrate the instability faced by subcontracted employees (Int14_UniGhana4_34:20). Furthermore, local populations are often excluded from stable, skilled roles, which are reserved for urban or university-educated individuals (Int14_UniGhana4_35:10). This limited upward mobility reinforces socio-economic inequalities within mining communities.

*Workplace Environment and Mobility*

The workplace environment in LSM operations is often described positively by workers, who value the respect and autonomy afforded to them. As one participant noted:

"The working relationship is excellent… you are respected… valued at where you work, that's all you need" (Int3_Golden_03:30–04:10).

Opportunities for advancement also exist, with promotions frequently tied to performance and tenure (Int3_Golden_02:30–03:00). However, job mobility is influenced by geographic preferences and social networks. Workers often select jobs based on proximity to family, balancing professional aspirations with personal needs (Int3_Golden_04:20–05:10).

Concluding, the working conditions in Ghana's LSM sector present a nuanced picture of labour dynamics. While formal mechanisms such as health care, structured wages, and union representation provide relative stability, significant inequities persist in pay, benefits, and job security. Subcontracting and market volatility exacerbate precarity for local workers, while expatriates and top-tier staff disproportionately benefit from internalized costs. These dynamics underscore the duality of Ghana's mining sector, where progress in labour protections coexists with enduring socio-economic tensions.

### *6.3 Corporate Social Responsibility*

Corporate Social Responsibility (CSR) has become a key instrument through which large-scale mining companies in Ghana seek to demonstrate social commitment and mitigate the visible impacts of extraction. Interview accounts, however, reveal considerable inconsistencies: while firms highlight investments in education, infrastructure and livelihoods, many initiatives remain fragmented, short-term or strategically selective. This section examines how CSR is perceived and implemented in practice, drawing on examples that illustrate both its contributions and its limitations.

*Education and Scholarships*

Education is a cornerstone of many CSR programmes in Ghana's LSM sector, reflecting a commitment to community development and skill-building. Mining companies sponsor schools, provide scholarships, and partner with academic institutions to support education. One company representative described their educational initiatives:

"We have a school from ages 1.5 to 15…also do bursaries for employees and local folks…" (Int1_GMC_35:00) (see: Picture GCM 13: School of GCM).

These initiatives are often designed to serve both employees' families and the broader community, creating opportunities for children and youth to access formal education. Scholarships are a particularly notable aspect of CSR, as companies offer financial assistance for higher education, often tied to mining-related fields. For instance, partnerships with the University of Mines and Technology (UMaT) provide subsidized schooling for employees' children and help foster a local talent pipeline for the industry (Int6_Anglo2_00:40).

The provision of scholarships also extends beyond local programmes to international opportunities. Some companies, particularly Chinese-led ones, offer advanced education scholarships through initiatives like the Chinese Scholarship Council, enabling beneficiaries to pursue studies abroad (Int11_UMaT_00:24). However, these programmes are not widely publicized, leaving a gap in community awareness and potentially limiting their impact (cf. Int11_UMaT_00:22).

Despite these contributions, education-focused CSR initiatives often face criticism for being unevenly distributed and poorly aligned with broader community needs. Historical context reveals that CSR in mining only emerged in the 1990s as a response to growing community dissatisfaction, leaving many communities with unmet expectations (Int9_Chief_00:07).

*Infrastructure and Public Services*

Another prominent dimension of CSR is investment in local infrastructure and public services. Mining companies have undertaken projects such as road construction, teacher housing, and community centres to address gaps left by the state. One participant noted:

“We also do corporate social responsibility programmes for the catchment’s community. We build teacher’s quarters, fix roads. We sponsor some local needs” (Int1_GMC_00:10:00 & 00:55:00, paraphrased).

Road construction (see: Picture T1-4), in particular, is frequently cited as a critical contribution, with companies stepping in to maintain transportation networks that are vital for both mining operations and community mobility. However, these efforts are often viewed as filling governance gaps rather than fostering genuine socio-economic transformation (Int1_GMC_64:50).

The railway infrastructure in Ghana’s mining sector has long been a critical but neglected asset. Historically, the colonial administration established a rail line connecting the manganese mining areas to the port of Takoradi, facilitating efficient mineral exports. However, this railway has remained largely not functional for years, despite repeated promises by mining companies to restore it.

Photographs of the existing railway line and stationary train (see Pictures GCM 8–9) illustrate its deteriorated state and chronic underutilisation, serving as a visual reminder of the sector’s unfulfilled infrastructural potential.

One interviewee highlighted that manganese mining companies had pledged around $10 million for rehabilitation, yet the funds' actual utilization remains unclear: “They [the mining company] were asked to bring money to the railway department [of the transport ministry] to which they gave 10 million dollars […] yeah but we don't know how that money ended” (cf. Int10_MC_ 01:45).

Rail transport would be the most efficient alternative means of mineral transportation, preventing road deterioration caused by heavy-duty mining trucks and reducing logistical costs. As one respondent emphasized: "That one is the most efficient way of transporting, definitely. The roads are not destroyed by heavy trucks, and it's faster and easier." (ibid).

Despite its strategic advantages, the railway remains largely underutilized, operating infrequently and serving primarily the interests of a single mining company. Other businesses and private individuals are left with no alternative but to rely on the heavily congested and overburdened road network, which suffers from extensive wear due to the constant flow of heavy mining trucks. Instead, they provide financial contributions to the state rather than handling the expansion and repairs themselves. One explanation for this reluctance is that - similar to ownership structures in Germany - railways are state-owned assets, requiring companies to channel their investments through government agencies: "If you have private money and want to invest, they will tell you to give the money to the highways authority." (ibid). In this light, the imagery of stationary railcars and overgrown tracks (see Pictures GCM 8–9) not only symbolizes the neglect of a key transport asset but also underscores the missed opportunity to expand rail infrastructure in ways that could relieve pressure on road networks and provide broader public transportation benefits."
Community centres (see: Picture T7) are another common CSR initiative, typically funded through mechanisms like the Mining Community Development Scheme. These centres are intended to serve as multipurpose spaces for events such as weddings and funerals, reinforcing the companies' role in local social life (Int20_Resident_Community_00:50). Yet, critiques abound regarding the narrow focus of such projects, with many stakeholders arguing that resources should be pooled for larger, transformative investments, such as industrial plants or regional infrastructure (Int10_MC_00:04).

*Health and Livelihoods*

CSR initiatives in health and livelihoods are critical to addressing the socio-economic disruptions caused by mining. Companies sponsor community clinics, support alternative livelihood programmes, and provide potable water facilities. For example, one company invested in health infrastructure and paid teacher salaries as part of their CSR commitments (Int1_GMC_35:00; Int2_Golden_01:25:00).
Alternative livelihood programmes are designed to reduce dependence on mining and promote economic diversification. Examples include sponsorship of palm oil production, poultry farming, and rabbit farming:
"Palm oil, poultry, rabbit-farming… alternative livelihoods… sponsored by the mine…" (Int2_Golden_01:22:30 approx.).
These programmes aim to mitigate the socio-economic displacement caused by mining activities by providing communities with additional income streams. However, such initiatives often lack scalability and long-term sustainability, limiting their impact.
In some cases, CSR promises remain unfulfilled, further eroding community trust. One participant recounted how a company began laying pipes for potable water but failed to

complete the project, leaving the community to bear the cost of its completion (Int14_UniGhana4_32:10, paraphrased). Such examples highlight the incomplete and sometimes performative nature of CSR efforts, where companies may prioritise public relations over substantive community support.

*Employee and Community Welfare*

CSR programmes often extend to employee and community welfare, offering additional benefits to foster goodwill. For employees, these include performance-based gift vouchers, annual hampers, and recreational facilities such as swimming pools:

“We do a hamper for everyone at the end of the year, plus a performance-based gift voucher system, like 500 cedis to go to Melcom” (Int2_Golden_00:45:00).

While such initiatives enhance employee satisfaction and strengthen the companies’ reputations, they also reveal a strategic approach to CSR, where benefits are distributed selectively to align with corporate goals.

Community members similarly receive occasional welfare benefits, such as school supplies or small-scale infrastructure. However, these projects often lack transparency and alignment with broader development priorities. Local leaders, for instance, have expressed frustration over the mismanagement of CSR funds and the political influence that distorts spending decisions (Int10_MC_00:14).

Field observations further revealed that some miners reside with their families in company-provided housing within the mining area (see Pictures GCM 5-6), while others are transported to the site by company shuttle buses. This daily commute reflects the structured and controlled labour environment within large-scale mining operations, where workers often live in designated housing areas, reinforcing corporate oversight both on and off-site. (see Picture GCM 7).

*Challenges and Critiques of CSR*

Despite its contributions, CSR in the mining sector faces significant critiques. Many initiatives are perceived as fragmented and superficial, with companies prioritizing short-term projects over structural reforms. As one respondent observed:

“CSR is a common discourse in mining. But it’s often just a new liberal approach to placate local people, not necessarily ensuring they fully benefit” (Int15_UniGhana5_17:20, paraphrased).

Another critique focuses on the lack of community ownership in CSR planning and execution. While mechanisms like the MCDS allow communities to propose development projects, decisions are often influenced by political agendas or constrained by limited budgets, resulting in suboptimal outcomes (Int10_MC_00:05; Int17_MC_MQ_01:40).

The absence of transparency in fund allocation further undermines the effectiveness of CSR. Local leaders have reported being excluded from key budgetary discussions, leaving them unable to advocate for their communities' needs (Int9_Chief_00:16).

*Ecological CSR*

Although less emphasized in interviews, ecological CSR initiatives are critical to addressing the ecological impacts of mining. Companies often commit to land reclamation projects, ensuring that mining sites are rehabilitated after operations cease. One participant explained:

"They plan to fully refill the pit…the money is set aside by the government, but effectively the company must do the reclamation, otherwise the state will step in" (Int5_Anglo1_00:01 – 00:03).

Such efforts, while necessary, are often framed as part of the companies' legal obligations rather than proactive CSR. This raises questions about whether ecological restoration should be considered a voluntary initiative or a mandated responsibility.

Concluding, CSR in Ghana's LSM sector highlights the dual role of mining companies as both economic actors and community stakeholders. While initiatives in education, infrastructure, health, and welfare demonstrate companies' efforts to address local needs, these programmes often fall short of delivering transformative change. Fragmented implementation, lack of transparency, and political influence undermine the potential of CSR to foster equitable development. To truly internalize socio-economic and ecological costs, CSR must move beyond performative gestures and embrace a more inclusive, strategic approach that prioritises long-term community empowerment.

### *6.4 Socio-Ecological Impacts of Large-Scale Mining in Ghana*

Large-scale mining (LSM) operations in Ghana create profound socio-ecological challenges, affecting the environment, communities, and cultural practices. These impacts often result from the externalization of costs by mining companies, leaving local populations to bear the brunt of socio-ecological degradation, health risks, and social disruptions. This chapter explores the reported socio-ecological consequences of LSM, focusing on ecological degradation, displacement, health risks, and cultural disruptions, while also examining efforts at mitigation and their limitations.

*Ecological Degradation*

A residential area located adjacent to an active mining site (see Picture T8), home to an interviewee and their family, exemplifies the spatial proximity between industrial extraction zones and inhabited spaces. The settlement's location beside a presumably contaminated lake raises concerns regarding water quality, progressive ecological degradation, and the long-term health risks associated with sustained exposure to mining-related pollutants.

Such examples (cf. Int1_GMC_05:15) underscore that ecological transformation is not confined to remote or uninhabited areas but is embedded within the lived realities of local communities. In certain cases, extensive removal of overburden has substantially reduced the height of surrounding hills, altering both the physical landscape and its cultural and aesthetic significance. Similarly, open-pit mining frequently results in expansive voids that, upon cessation of operations, fill with water and become informal reservoirs for neighbouring populations: "The pit was an [anonymized] mining company… now the pit is big, and the water rose" (Int7_ResidentLake_00:05). These water bodies are at times utilised for domestic purposes such as bathing, washing, and swimming (Int7_ResidentLake_00:30). However, their safety remains uncertain; sudden prohibitions on their use, as reported by residents, indicate emerging concerns over contamination or corporate liability (Int7_ResidentLake_01:20).

Waste management and chemical handling are critical ecological concerns. Companies attempt to mitigate some of these impacts through practices such as paste-filling voids to prevent ground subsidence and lining waste heaps to reduce chemical leaching (Int5_Anglo1_00:31; Int5_Anglo1_00:34). Despite these efforts, the risks of groundwater contamination remain. Cyanide leaching, a common method in gold extraction, poses significant hazards if poorly managed:

"When they do leaching for gold, you have these big heaps with cyanide sprinkling, if not well-lined, it seeps into groundwater" (Int10_MC_01:21).

Air pollution and dust from heavy trucks further exacerbate ecological degradation, creating respiratory health risks for workers and nearby residents (Int9_Chief_00:14; Int10_MC_00:24). This underscores the difficulty of fully internalizing ecological costs in mining operations, as even companies with regulatory oversight struggle to prevent these externalities.

*Displacement and Relocation*

Displacement and the loss of land are key socio-ecological consequences of LSM. While some companies claim minimal forced relocation due to their long-standing presence predating community settlements:

“We don’t do relocation. Historically, we never relocated a community. […] The mine was existing, the villages came after” (Int1_GMC_00:12:00).

Other cases reveal significant disruptions. For instance, some communities have been relocated, with companies providing housing as compensation:

“We had to relocate communities. We built houses for them. The company paid for that; the houses belong to them” (Int2_Golden_00:43:00).

Such measures, though seemingly compensatory, often fail to account for broader socio-ecological consequences, including the loss of farmland and traditional livelihoods:

“When they come, they displace farmland. So farmers lose their land to the concession. You cannot go there to farm; you lose livelihood” (Int9_Chief_00:13).

The displacement of agricultural activities creates economic precarity, forcing communities to become dependent on mining-related income or relocate to less fertile areas, further exacerbating their vulnerability.

*Health Risks and Ecological Pollution*

Mining activities pose significant health risks, ranging from acute exposure to toxins to long-term “slow violence” that manifests over time. Dust pollution, chemical spills, and contaminated water sources contribute to respiratory and other health issues among affected populations:

“Air pollution is big; spillage happens... We have dust. People have respiratory diseases” (Int9_Chief_00:14).

In small-scale mining (SSM), mercury usage is a prominent health hazard, leading to water and soil contamination that severely impacts local communities:

“Mercury is in rivers, farmland, and affects kidneys. That’s the big health crisis” (Int16_Dav_07:45).

Large-scale mining, while more regulated, is not immune to such risks. Cyanide and other hazardous substances, if improperly handled, can contaminate local ecosystems and pose long-term health threats (Int17_MC_MQ_02:15). Even when companies implement ecological performance metrics tied to bonuses (Int6_Anglo2_00:39), these systems are often insufficient to address the cumulative health impacts of mining.

At GMC, a sign proclaiming ecological protection as an individual duty, placing emphasis on the behaviour of workers and local communities while diverting attention from the systemic ecological damage inherent to large-scale industrial mining. Such messaging encourages individual responsibility yet leaves questions of corporate and structural accountability for extensive ecological degradation largely unaddressed. *(*see Pictures GCM 2-4)

*Community and Cultural Disruption*

The socio-ecological impacts of LSM extend into the cultural domain, disrupting traditional practices and community cohesion. The transformation of ancestral land into mining zones often clashes with local cultural values:

“Community norms see land as ancestral, so they can’t imagine it being destroyed for short-term mining. They fear the spiritual implications” (Int13_UniGhana3_09:55).

Corporate sponsorship of cultural events, while framed as a goodwill gesture, is often perceived as a superficial attempt to mitigate deeper grievances:

“You see some changes in local festivals or community gatherings; sometimes the companies sponsor them. But that doesn't fix the deeper sense of land violation that people feel” (Int13_UniGhana3_31:00).

Such sponsorship can co-opt traditional practices, overshadowing fundamental issues of land restitution and resource governance.

*Governance and Accountability*

Weak governance and limited regulatory enforcement exacerbate the socio-ecological impacts of mining. While some mechanisms, like the Mineral Development Fund (MDF), aim to allocate royalties for community development, their impact is often diluted by poor transparency and mismanagement (Int18_MDF_00:10). This failure to effectively internalize socio-ecological costs results in fragmented and superficial outcomes, leaving communities to bear the brunt of mining’s negative impacts:

“Even with big revenue from resources, we’re not seeing major ecological remediation. The environment risk is left to local people; the profits go overseas” (Int13_UniGhana3_26:30).

Efforts by NGOs and other organizations to promote responsible practices, such as land reclamation and capacity-building programmes, demonstrate potential pathways for mitigating these impacts. However, without stronger enforcement and community participation, such initiatives remain limited in scope and effectiveness (Int19_NGO_HQ_02:30; Int19_NGO_HQ_04:00).

Concluding, the socio-ecological impacts of LSM in Ghana are extensive and multifaceted, encompassing ecological degradation, displacement, health risks, and cultural disruption. While some mitigation efforts exist, they are often inadequate and poorly enforced, leaving communities to absorb the externalized costs of mining. Addressing these challenges requires a shift toward comprehensive governance frameworks that internalize socio-ecological costs, enforce ecological regulations, and ensure equitable benefits for affected populations. Only through such systemic changes can mining operations begin to reconcile resource extraction with sustainable development.

### *6.5 Cultural Impacts: Change and Tension*

Cultural impacts in the context of large-scale mining (LSM) operations in Ghana encompass a complex interplay of social tensions, cross-cultural dynamics, and shifts in local traditions and norms. The interviews conducted reveal both positive internal workplace cultures and significant frictions between local communities, traditional authorities, and foreign corporate influences. These dynamics are deeply rooted in colonial legacies, evolving local aspirations, and the cultural reconfiguration driven by economic dependency on mining activities.

*Internal Workplace Culture*

While instances of harmonious workplace relations were noted, the interviews reveal that cross-cultural tensions are not uncommon. For example, an employee at Golden Star highlighted a positive work environment: “Here, the working relationship is so excellent, you feel very happy at work” (Int3_Golden_03:30–04:10). This suggests that well-managed teams can mitigate cultural friction and foster a sense of community within mining operations.

However, social stratification within mining compounds reflects cultural and economic disparities. Senior staff often enjoy superior living conditions, creating implicit hierarchies. As one interviewee explained, “We’re about 80% Christian… some from other faiths. Usually no friction, though…some families stay in company housing, some in town” (Int6_Anglo2_00:35). This structure, while functional, can reinforce divisions between employees based on their social or professional status.

*Cross-Cultural Friction and Foreign Influence*

Foreign management styles, particularly those introduced by Chinese companies, were frequently cited as sources of tension. One interviewee described the challenges of a management transition: “When Chinese took over, they changed the management style. Some friction happened. They didn’t know our system, we had confusion” (Int1_GMC_00:50:00). This reflects how abrupt shifts in organizational practices can create misunderstandings and operational inefficiencies.

Language barriers further exacerbate these issues. A GMC worker noted that the presence of translators occasionally caused miscommunication: “They had a translator… miscommunication…some found fault…” (Int1_GMC_55:00). Similarly, Ghanaian professionals trained in China faced difficulties with technical terms, as one explained: “The language barrier was tough. If you don’t master Chinese terms, it’s harder to get the technical aspects" (Int11_UMaT_00:14–00:16). Such challenges hinder effective cross-cultural integration and collaboration.

Chinese companies' tendency to establish isolated enclaves exacerbates cultural disconnection. As described in one account, "Chinese came in droves, took over entire hotels, had their own enclaves, gaming, flew in staff, completely separate from local culture, raising tensions" (Int16_Dav_21:30). This insularity fosters resentment among local populations, reinforcing negative perceptions and social division.

*Colonial Legacies and Power Dynamics*

The persistence of colonial hierarchies and associated cultural frictions remain evident in Ghana's mining sector. One interviewee noted: "Here we used to have many white staff from Canada or Australia. They often stuck together. People associate with them if they want 'white benefits'" (Int2_Golden_00:55:00). This highlights how expatriate enclaves perpetuate a sense of exclusivity, reinforcing divisions between local and foreign staff.

Pay disparities between expatriates and local workers further deepen cultural tensions. As one worker observed: "If it's an expat, the pay might be double. People talk about it, but the union can't do much. This can create tension" (Int2_Golden_00:31:00). Such inequalities not only affect workplace morale but also reflect broader power imbalances rooted in the global economic hierarchy.

*Local Culture and Land Stewardship*

Land is a central element of Ghanaian cultural identity, tied deeply to ancestral heritage and communal values. This perspective often clashes with corporate and governmental approaches that prioritise land as a commodity. A university professor explained: "Land for communities is not purely economic, it's linked to ancestors, future generations. The government sees it as a commodity. That is a cultural clash" (Int12_UniGhana2_09:45).

Traditional leaders, as stewards of ancestral land, often find their roles compromised by corporate interests. Chiefs, for instance, may face conflicts between defending communal rights and accepting financial incentives from mining companies. One respondent noted: "Chiefs are expected to defend communal land, but being on the company payroll hinders them from fighting for cultural or ancestral rights to farmland" (Int14_UniGhana4_39:00). This duality weakens traditional governance structures and erodes cultural autonomy.

Additionally, the economic appeal of mining has led to a cultural shift away from agriculture. As one official observed, "You see farmers leaving cocoa or palm oil for small-scale mining. They think it's quicker money. That changes the local culture from agrarian to extractive" (Int10_MC_00:28–00:29). This transformation reflects the broader peripheral imperial mode of living, where global economic pressures reshape local values and livelihoods.

*Cultural Preservation and Corporate Influence*

Corporate Social Responsibility (CSR) initiatives often attempt to address cultural grievances, yet they rarely engage with deeper issues. Mining companies sponsor festivals and community events, but such efforts can overshadow more significant cultural concerns. As a professor noted, “You see some changes in local festivals or community gatherings; sometimes the companies sponsor them. But that doesn't fix the deeper sense of land violation that people feel” (Int13_UniGhana3_31:00).

Efforts to integrate cultural perspectives into decision-making are limited. Local management committees, which include traditional rulers and women representatives, aim to address this gap. One respondent highlighted: “Local management committees include traditional rulers and women organizations, ensuring that cultural and gender perspectives are integrated into development projects” (Int18_MDF_01:00). However, the effectiveness of such mechanisms remains inconsistent, particularly when deeper structural inequalities persist.

*Community Frustration and Resistance*

The marginalization of traditional and community voices often leads to protests and resistance. Land, imbued with spiritual and ancestral significance, becomes a rallying point for communities. One respondent emphasized: “Communities do protest. They feel a moral right to land that’s not purely economic but also ancestral. When ignored, they resort to direct action” (Int14_UniGhana4_48:10). These tensions highlight the urgent need for culturally sensitive governance and inclusive decision-making processes.

In conclusion, the cultural impacts of large-scale mining in Ghana are deeply interwoven with issues of power, identity, and economic dependency. While CSR initiatives and inclusive governance mechanisms provide some mitigation, they often fail to address the structural and symbolic dimensions of cultural grievances. Mining companies must adopt a more holistic approach that respects and integrates local cultural practices, ensuring that economic development aligns with community traditions and values.

## 6.6 Concluding Remarks

The cultural impacts of large-scale mining in Ghana reveal a multifaceted interplay of social tensions, traditional values, and external influences. While some mining operations foster positive workplace cultures and attempt to integrate cultural considerations through CSR initiatives, deeper structural inequalities and power imbalances often perpetuate friction. The disconnect between traditional land stewardship and the commodification of land by corporate and state actors underscores a fundamental cultural clash. Furthermore, pay disparities, isolated foreign enclaves, and the erosion of agrarian traditions highlight the transformative effects of mining on local identities and livelihoods.

To mitigate these challenges, mining companies must prioritise culturally sensitive approaches that go beyond superficial CSR efforts. Inclusive governance, meaningful community engagement, and respect for ancestral land rights are essential to aligning economic activities with local values and fostering sustainable cultural harmony. By addressing the root causes of cultural tensions, mining operations can contribute to preserving Ghana’s rich cultural heritage while supporting equitable development.

## 7. Discussion

This chapter analyses and interprets the empirical findings from chapter 6 through the theoretical lens developed in chapters 2 and 3, in order to answer the central question guiding this thesis: 'How do internalization mechanisms shape the socio-ecological impacts of large-scale mining in Ghana?' By linking the case study to world-system and dependency perspectives, neo-extractivist critiques, and resource-curse debates, the chapter shows how CSR initiatives, labour incentives, and the co-optation of local elites' that function as key mechanisms through which socio-ecological costs are internalized and structural inequalities preserved.

The discussion is structured around three analytical dimensions:

1. The first dimension examines how internalization mechanisms legitimise extractive activities by absorbing visible socio-ecological costs while leaving underlying power asymmetries intact.
2. The second dimension analyses how these mechanisms shape socio-ecological realities on the ground, particularly in relation to land use, pollution, and labour conditions drawing on stakeholder perspectives.
3. The third dimension situates these dynamics within the global capitalist world-system, showing how internalization practices reinforce Ghana's peripheral position and reproduce colonial continuities in resource governance.

Consequently, a more transformative shift is required, one that addresses the structural conditions of extractive dependency and reconfigures Ghana's position within the global resource order, rather than adjusting its symptoms through localized CSR interventions.

### *7.1 Internalization Mechanisms and the Resource Curse*

This section examines how the socio-ecological costs of large-scale mining in Ghana are politically, socially, and economically absorbed through internalization mechanisms. Drawing on Landherr and Graf's (2022) concept of territorial power, resource-curse debates (Auty 1993; Sachs/Warner 1995), and world-system theory (Wallerstein 1974, 1986), it analyses how corporate strategies such as CSR programmes, wage incentives, and the concept of coloniality of power as well as the co-optation of local elites' function to stabilize extractive operations while reproducing structural inequalities. In resource-dependent economies like Ghana, internalization mechanisms compensate for visible harms yet leave underlying power asymmetries intact.

The empirical findings show that companies internalize specific socio-economic costs through selective CSR initiatives, such as schools, clinics, scholarships, and basic infrastructure. While these measures address immediate community needs, they do so on a modest and reversible scale, aligned with corporate interests and commodity price cycles. As such, CSR often operates less as a development tool than as a mechanism of legitimacy-building that helps manage discontent while extraction continues largely unaltered (cf. Rajak 2011).

These contributions also allow companies to assume functions typically associated with the state. In areas where public institutions are fragmented or overstretched, mining firms maintain roads, fund health facilities, or sponsor education. This dynamic resembles Lund's (2006) concept of "twilight institutions": actors without formal public mandates acquire authority by performing public roles. In doing so, corporate power becomes embedded in everyday governance, not through democratic accountability but through financial capacity. The result is a subtle privatization of public authority, where companies appear indispensable, and state responsibility becomes blurred.

Elite co-optation further strengthens these dynamics. When traditional leaders or municipal representatives participate in advisory boards or receive individual benefits, they often become aligned with corporate rather than community interests. This reflects the coloniality of power, where local elites mediate external extraction and thereby reproduce asymmetric resource relations. Instead of challenging inequitable concessions, wage disparities, or regulatory weaknesses, co-opted actors may legitimize them, contributing to the stabilization of an extractivist model in which their own social position is secured.

Beyond economic and political co-optation, internalization also operates at a cultural level. CSR-sponsored festivals, community centres and ceremonial engagements with chiefs allow companies to present themselves as custodians of local heritage while subtly reshaping the meaning of that heritage. As chapter 6.5 has shown, cultural practices are not simply "preserved" but selectively re-scripted to fit the needs of extractive capital: rituals of belonging and land stewardship become stages for corporate visibility and goodwill gestures. This cultural layer of internalisation reinforces the coloniality of power, as communities are primarily recognised as recipients of benefits rather than as rights-holding collectivises capable of defining or vetoing extractive projects. In doing so, cultural recognition becomes another mechanism through which extractive activities are normalised, and local resistance is fragmented.

Labour relations represent another dimension of internalization. Structured wages, medical care, annual leave, and other benefits partially absorb the social reproduction costs of mining. Yet they coexist with sharp disparities between local and expatriate workers and with limited union leverage over issues such as profit repatriation or subcontracting. Employment thus mitigates certain hardships, but it does not address deeper injustices related to land dispossession, wage hierarchies, or precarious labour mobility.

These local practices are closely tied to Ghana's structural position in the global economy. Resource-curse theory emphasises how reliance on primary commodity exports entrenches macroeconomic vulnerability and uneven development. Ghana's concession regimes, tax holidays, and investment incentives reflect the competitive pressures of attracting foreign capital in a peripheral position within the world-economy. The Minerals and Mining Act grants companies' extensive autonomy, while the state absorbs risks associated with market volatility and ecological degradation. This institutional configuration embodies a structural coloniality of power: foreign profitability is prioritised, while socio-ecological costs are absorbed domestically.

The findings further reveal that although communities receive selective benefits, such as limited infrastructure, scholarships, or subcontracting opportunities, the underlying inequalities persist. Fragmented governance, weakened customary authority, and inconsistent regulatory enforcement enable companies to operate with minimal challenge. Socio-ecological degradation, health impacts, and cultural disruptions accumulate slowly and unevenly, exemplifying Nixon's notion of slow violence, which rarely provokes systemic reform because harm unfolds incrementally and remains politically manageable.

Taken together, the results show that internalization mechanisms in Ghana's large-scale mining sector function primarily as instruments of legitimation and stabilization. They mitigate surface-level grievances, cultivate cooperative local elites, and provide selective material benefits, but they do not alter the deeper structures that sustain extractive dependency. Instead, socio-ecological costs are systematically shifted onto mining-affected communities, enabling corporate territorial power to consolidate while Ghana's subordinate position within the global capitalist system remains intact.

### *7.2 Local Impact: Slow Violence and the Peripheral Imperial Mode of Living*

This section examines the localized impacts of internalization mechanisms in Ghana's LSM sector, focusing on how these measures influence socio-ecological conditions and how they are perceived by various stakeholders, including workers, chiefs, NGOs, and local authorities. Drawing on Nixon's (2011) concept of slow violence and Brand and Wissen's (2017) peripheral imperial mode of living, the discussion explores the dual reality of such benefits, such as infrastructure improvements and formal employment – and the incremental, often hidden, damages on ecosystems and cultural disruption.

Empirical findings reveal that while LSM operations are subject to ongoing contestation, they extend selective material benefits to segments of the local population, thereby contributing to the stabilization of extractive regimes. Interviewees, particularly those employed in the formal mining sector - highlight more predictable wages, access to structured health programmes, and union representation as advantage over the precarious and informal conditions in artisanal and small-scale mining (SSM).

These benefits, however, do not constitute meaningful inclusion into global capitalist systems, but rather function as mechanisms of legitimation that mask underlying inequalities and consolidate corporate authority.

For instance, structured health measures such as annual medical check-ups, as noted in interviews, offer a degree of stability uncommon in informal sectors. These programmes represent an attempt to internalize some social costs of labour while aligning with the peripheral imperial mode of living, which describes how peripheral populations are selectively included in global economic circuits through incremental improvements in livelihood conditions (Brand /Wissen, 2017).

Similarly, mining companies' investments in infrastructure, such as roads, community centres, and housing as mentioned in interviews, cater to local demands for modern amenities. For many communities, these developments signal progress and modernization, even as broader socio-ecological harms remain largely unresolved. Mining-related employment is often perceived as a comparatively stable and desirable alternative to subsistence farming or informal mining. Workers enjoy elevated social status, better pay, and some level of labour protection, which collectively reduce overt tensions and lend legitimacy to mining operations

However, these material gains do not eliminate the deeper structural inequities embedded in extraction-based economies. As Brand and Wissen (2017) argue, such benefits often serve to legitimize extractives' practices while obscuring the uneven distribution of socio-ecological costs, maintaining the peripheral status of affected regions. Consequently, worker satisfaction can serve as a buffer against open protests and allow companies to maintain their local legitimacy with minimal structural concessions.

Beneath these improvements lies the slow but insidious harm Nixon (2011) calls slow violence. Socio-ecological degradation, health risks, and cultural disruption that unfold gradually and evade immediate resistance. The empirical data reveals how the logic of internalization materializes as slow violence on multiple levels, manifesting in three structurally interconnected domains:

First, ecological pollution and gradual health risks: Dust and air pollution from haul roads contribute to chronic respiratory issues, while chemical residues from leaching activities contaminate water sources and farmland interview data indicate. These impacts are cumulative, often becoming apparent only after significant ecological and social thresholds have been crossed. These ecological harms are not accidental byproducts but represent the delayed costs of an extractive model that privileges short-term capital accumulation over long-term ecological sustainability - costs that are systematically externalized onto peripheral communities.

Secondly, land dispossession and displacement: Instances of forced relocation or farmland losses, sometimes compensated with new housing, radically disrupt subsistence livelihoods, as reported by workers. These relocations are often framed as “managed” through CSR packages or resettlement support, yet they frequently reproduce a form of assistentialism - that is, short-term, paternalistic compensation that offers visible assets without restoring land rights or livelihood security. In practice, this means that while households receive visible assets, the structural foundations of their subsistence economy are eroded, leaving families dependent on extractive companies rather than self-sufficient. This illustrates how dispossession operates not only through physical displacement, but also through a systemic reconfiguration of space in favour of extractive capital, ultimately undermining traditional land governance and community cohesion.

Finally, cultural and social erosion: Ancestral ties to land and cultural practices are gradually undermined by mining activities, shifting communal values toward extractive livelihoods. Sponsored community events provide symbolic recognition, but they do not necessarily address deeper collective traumas associated with ecological damage and cultural dislocation (cf. Int13_UniGhana3_31:00). These symbolic recognitions serve as performative compensations that obscure the deeper disintegration of cultural life-worlds - reducing social repair to superficial visibility while leaving structural trauma intact.

These cultural dynamics are central rather than peripheral to the stabilisation of extractive regimes. As chapter 6.5 has demonstrated, workplace cultures, residential patterns and everyday social interactions in mining towns become arenas in which hierarchies are reproduced and contested. Expatriate enclaves, segregated housing compounds and persistent pay gaps between local and foreign staff do not only reflect economic inequalities; they symbolise an ongoing stratification of status and recognition that echoes colonial labour orders. At the same time, many workers describe respectful relations and a sense of pride in being part of modern industrial operations, which speaks to the ambivalence of these cultural configurations: they generate both resentment and aspiration.

Corporate sponsorship of community events functions or youth programmes as a further cultural internalisation mechanism. These interventions acknowledge local identities and traditions, but they also tend to depoliticise them by channelling grievances into ceremonial forms of interaction. As several interviewees noted, the sponsorship of celebrations or community centres does not address the deeper experience of land violation or the erosion of agrarian life-worlds. In Brand and Wissen's terms, such practices help to consolidate a peripheral imperial mode of living in which aspirations for consumption and social mobility become attached to mining-led "development", even as ancestral relations to land and non-extractive livelihoods are weakened.

Seen through the lens of slow violence, cultural erosion is therefore not an incidental by-product of mining but a gradual, cumulative process. Everyday routines in mining compounds, the reorientation of youth away from farming and towards artisanal or industrial extraction, and the symbolic alignment of chiefs with corporate actors all contribute to a slow reconfiguration of norms and expectations. The result is a cultural landscape in which extractive activities appear increasingly inevitable and legitimate, while alternative socio-ecological futures become harder to imagine and articulate.

Such harms unfold incrementally, often hidden behind the veneer of "development" promised by mining ventures. Communities may see immediate gains in employment or infrastructure, yet the cumulative ecological and social toll continues to mount, largely unacknowledged in company-led CSR narratives. This dynamic exemplifies Nixon's slow violence, which - when read through the lens of territorial power and resource dependency - reveals how extractive governance in peripheral zones sustains itself precisely through the invisibilities of harm and the fragmentation of resistance over time.
Building on the previous discussion of slow violence and the fragmentation of harm perception, it is essential to acknowledge that local communities are not homogeneous actors. Perceptions of internalization mechanisms differ markedly, shaped by individuals' varying roles, socio-economic positions, and degrees of dependency on extractive operations. While this heterogeneity is recognized, the following analysis adopts analytically constructed categories to identify prevailing patterns of interpretation and perception.

The perspectives on internalized mechanisms are thus grouped into three broad categories, briefly outlined below, to highlight key patterns among local actors:

First, workers and formal LSM employees often appreciate structured wages, safety measures, and annual bonuses or hampers. Nevertheless, many remain dissatisfied with wage discrepancies between local and expatriate staff (cf. Int2_Golden_01:03:00), underscoring a persistent sense of inequity. Although unions exist, they exert limited influence over strategic corporate decisions or broader socio-ecological issues tied to extraction.

Secondly, traditional authorities such as chiefs: Some chiefs benefit from corporate co-optation e.g., board memberships, honoraria, or social standing. Yet others critique the erosion of local autonomy, noting that land-use decisions are often made at state or corporate levels (cf. Int9_Chief_00:09). The tension between customary land tenure and state-led mineral rights fosters internal community conflicts, with chiefs sometimes caught between advocating for traditional stewardship and accommodating corporate interests.

Lastly, NGOs and Local Authorities: Civil society actors frequently highlight the inadequacy of CSR in addressing “root causes” of ecological harm or socio-economic exclusion. Despite minor improvements through road networks, schools or health benefits, NGOs argue that such measures fail to protect water sources or ensure durable livelihood diversification, NGOs highlight. Similarly, local authorities point out that governance gap, such as inconsistent regulation and overlapping mandates, allow companies to avoid accountability and continue externalizing ecological and social costs, local authorities emphasize. These institutional weaknesses reflect a broader democratic deficit in natural resource governance. Agencies formally responsible for oversight, such as ecological authorities, municipal councils, and land commissions, often lack the authority, resources, or political backing to effectively regulate powerful extractive actors. Over time, as companies consolidate their influence on the ground, this imbalance deepens: the longer corporate actors operate without effective checks, the more state authority erodes, reinforcing the conditions that enable further externalization.

Overall, perceptions converge on the understanding that the real costs of LSM, biodiversity loss, health risks, displacement remain undervalued in prevailing corporate-community interactions. While incremental improvements materialize, ecological degradation and social injustices accumulate below the surface, invoking precisely the slow violence that Nixon (2011) describes. This dynamic illustrates how corporate actors gradually reconfigure local governance structures. By providing services such as roads or development funds, companies accumulate local authority; and it is precisely this authority that, in turn, enables them to determine where and how such services are delivered. Rather than a simple exchange, this forms a mutually reinforcing cycle in which corporate actors gain influence through service provision and simultaneously use this influence to shape future interventions. In doing so, they do not merely fill governance gaps but actively reshape local power structures and challenge existing forms of legitimacy.

Finally, these local-level experiences raise the question of whether internalized mechanisms mitigate conflict or merely mask it. On the one hand, stable employment, healthcare subsidies and infrastructural support do reduce overt tensions in mining areas, aligning with Landherr and Graf's (2022) argument that internalization mechanisms prevent immediate confrontations by distributing minimal benefits. On the other hand, the latent nature of ecological and cultural harm indicates that deeper discontent can surface - especially if socio-ecological thresholds are crossed (e.g., major spills, drastic job cuts).
In this sense, Brand and Wissen's peripheral imperial mode of living concept clarifies how local support for or acquiescence to mining projects emerges when communities perceive that integration into global economic circuits offers better prospects than agrarian or artisanal alternatives. However, as long as core-periphery inequalities and slow-acting ecological degradation remain unaddressed, any conflict reduction is fragile and superficial. Thus, at the local level, the empirical findings demonstrate how internalization mechanisms provide short-term stability and improve some living conditions while perpetuating or obscuring structural inequities. Nixon's slow violence underscores the cumulative and long-term toll of mining on ecosystems and community health, whereas Brand and Wissen explain the cultural acceptance of such compromises through aspirations for modern consumer lifestyles - a phenomenon typical of peripheral economies in the contemporary global order.

### *7.3 Mechanisms Embedded in the Global Capitalist World System*

This section examines how the internalization mechanisms discussed in chapters 7.1 and 7.2 are embedded within and reinforced by the structural dynamics of the global capitalist world system (cf. Wallerstein, 1974, cf. 1986). Drawing on neo-extractivist perspectives (cf. Svampa, 2016; cf. Lessenich, 2016) and world-system and dependency theories (cf. Frank, 1967; cf. dos Santos, 1970), it highlights how Landherr and Graf's (2022) territorial power framework and Brand and Wissen's (2017) peripheral imperial mode of living both operate within - and are reinforced by - global economic and institutional arrangements.

The empirical findings reveal that transnational mining corporations' benefit from Ghana's historical reliance on commodity exports. Despite state aspirations for industrial diversification, foreign capital inflows and large-scale concessions dominate key sectors, including gold and manganese extraction (cf. Int1_GMC_01:45). In line with dependency theory (cf. Frank, 1967; cf. dos Santos, 1970), this reliance on commodity exports perpetuates a cycle in which local elites ally with outside investors to secure income streams that, while substantial in absolute terms, these rents rarely translate into broad-based development or technological upgrading, reinforcing the enclave character of the sector (cf. Auty, 1993; Ross, 1999).

Within this broader core - periphery framework, Ghana, as a peripheral actor, is incentivized to grant favourable terms - tax holidays, minimal oversight - to transnational companies (cf. Int2_Golden_00:15:40). Interviews show that these incentives commonly include near-monopoly rights over mineral-rich territories and streamlined concession approvals (cf. Int10_MC_02:10). Notably, such arrangements align with Landherr and Graf's (2022) contention that territorial power in resource-frontier zones is supported by systemic factors, enabling corporations to exert quasi-sovereign authority in peripheral regions while funnelling profits to corporate headquarters in the core countries of the world system.

The neo-extractivist lens (cf. Svampa, 2016) further illuminates how rising global demands for so called-critical minerals sustain Ghana's peripheral role. As countries of the Global North push for renewable energy technologies - requiring cobalt, lithium, manganese, and other metals - resource-rich countries like Ghana face mounting incentives to expand extraction without necessarily securing higher value-added processes. The resulting surge in foreign direct investment (FDI) reaffirms Brand and Wissen's (2017) notion of a peripheral imperial mode of living, where peripheral communities experience selective gains such as improved wages or basic infrastructure but carry the ecological and cultural burdens of resource-intensive global production.

From the standpoint of Nixon's (2011) slow violence, this macro-dynamic means that external pressures - commodity price fluctuations and technology-driven mineral booms - accelerate local ecological stress. Interview insights illustrate that Ghana's export-oriented growth model externalizes ecological risks onto local communities, while financial gains largely accrue abroad. This pattern mirrors Lessenich's (2016) argument that high-consuming societies externalize the socio-ecological costs of their green transition, leaving peripheral territories to bear the brunt of pollution and resource depletion.

Interview results underscore how transnational firms leverage international capital networks and institutional gaps in Ghanaian governance to secure territorial dominance:

First, ownership structures and tax incentives play a central role, as corporations strategically relocate their headquarters to major financial hubs such as London or Vancouver to optimize regulatory conditions and profit repatriation, thereby limiting the extent to which resource-export revenues benefit local economies (cf.

Int2_Golden_00:15:00). By centralizing strategic decision-making abroad, corporations maintain territorial power on the ground - manifested in direct control over land concessions while evading more stringent oversight that might exist in their home countries (Landherr/Graf, 2022).
Weak regulatory enforcement further reinforces these dynamics, as empirical findings indicate overlapping mandates and limited oversight capacities that allow corporations to operate with considerable autonomy (cf. Int14_UniGhana4_45:00). These gaps allow corporate actors to selectively comply with safety and ecological regulations, thereby externalizing significant portions of ecological risk onto local communities. As argued by dependency theorists (cf. dos Santos, 1970), peripheral states, constrained by export revenues and debt obligations, often lack the leverage or political will to impose stringent conditionalities on foreign investors.
On the other, integration of traditional authorities: As presented in chapter 6, the results of this research demonstrate how local chiefs, historically central to land governance, can be co-opted into corporate boards or compensated with stipends (cf. Int14_UniGhana4_38:45). This convergence of local authority and global capital resonates with Landherr and Graf's observations of "coerced consensus" (2022) in peripheral mining contexts: transnational firms cultivate alliances with traditional elites, thus mitigating grassroots resistance and sustaining a global-local alliance that consolidates territorial control (cf. Landherr/Graf, 2022).

A key outcome of these embedded mechanisms is the reproduction of Ghana's peripheral status in the international division of labour (cf. Wallerstein, 1974). Although mining activities may bolster short-term GDP or government revenues, they typically fail to spur substantial value-added production, technological transfer, or effective spillover effects to other industry sectors. Such extractive zones are often described as enclave economies - highly capital-intensive operations that remain isolated from the broader national economy, generating limited linkages and reinforcing structural dependency (cf. Auty, 1993). Local subcontracting arrangements, wage disparities between expatriates and local workers, and the absence of high-skill job creation all reinforce the extractive rather than developmental orientation of the sector (Marini, 1974).
From a Brand and Wissen (2022) perspective, this scenario embodies the peripheral imperial mode of living, whereby communities gain superficial consumer benefits (wages to purchase goods, limited social services from CSR) but remain structurally dependent on exporting raw materials to core nations. Moreover, Nixon's (2011) slow violence framework underscores how the cumulative costs - ecological damage, community displacement -

become normalized in the periphery, rarely prompting a revaluation of global supply chains or deeper post-extractive alternatives.

In summary, Ghana's large-scale mining sector is not merely an aggregate of localized negotiations; it is deeply involved in a global capitalist order that rewards raw material extraction while externalizing substantial socio-ecological costs to peripheral regions. Landherr and Graf's territorial power thesis illustrates the corporate strategies through which mining firms consolidate control, while Brand and Wissen's peripheral imperial mode of living demonstrates how limited benefits sustain local acceptance. Nixon's notion of slow violence captures the gradual and unremarkable nature of ecological damage, which is rarely mitigated by market-driven reforms or temporary CSR measures.
By situating these internalization mechanisms within dependency frameworks, the empirical findings make evident that Ghana's role as a peripheral commodity supplier remains intact. While modern infrastructure, formal employment, and short-term economic benefits, are introduced through corporate interventions, these measures often reinforce rather than disrupt the structural power asymmetries that define the global production system.
The socio-ecological well-being of peripheral regions like Ghana is consistently subordinated to the demands of international markets, reflecting a continuity of colonial logics and extractives' dependencies that prioritise external profit over local sustainability and equity.

### *7.4 Synthesis of Key Discussion Insights*

This section draws together the overarching empirical findings and the theoretical frameworks to provide a comprehensive analysis of the question: How do internalization mechanisms shape the socio-ecological impacts of large-scale mining in Ghana?

The empirical findings strongly support Landherr and Graf's (2022) argument that transnational mining corporations construct a form of territorial power in peripheral regions by embedding themselves into local governance, livelihoods, and social infrastructures. This form of territorial embeddedness is not merely economic - it also entails the gradual consolidation of authority. By selectively taking over functions of public service provision, companies gain recognition as legitimate actors in local governance, blurring the boundary between economic power and political authority. In practice, large-scale mining companies strategically deploy selected internalization measures - such as CSR initiatives, scholarships, healthcare services, and partnerships with local elites - to foster acceptance and consolidate their authority. These mechanisms offer symbolic compensation for socio-ecological and cultural burdens, from disrupted land-based identities to re-scripted community rituals, while reinforcing the image of corporate benevolence. Rather than addressing structural injustices, such practices often serve to pacify discontent, fragment collective resistance, and shield extractive operations from deeper political or legal scrutiny However, while these measures can mitigate surface-level tensions - constructing roads or paying teacher salaries, for instance - they frequently fall short of transforming the structures that funnel disproportionate gains to corporate and elite stakeholders. Traditional authorities, who historically might have acted as checks on external actors, are in many cases co-opted into corporate boards or advisory committees. This arrangement undercuts their capacity to advocate for community interests in land governance and ecological regulation (cf. Int14_UniGhana4_38:45). Hence, internalization mechanisms do not merely address local needs but also reinforces a quasi-sovereign corporate authority that privileges transnational firms' agendas and facilitates continued resource extraction on favourable terms (see also Int1_GMC_01:45; Int2_Golden_00:15:40).

An equally critical insight emerges from Brand and Wissen's (2017) concept of the peripheral imperial mode of living, which underscores how local populations become culturally and materially bound to extractive projects. Many community members appreciate incremental gains - stable jobs, infrastructural upgrades, scholarships - and thus exhibit a degree of acquiescence toward mining. These short-term benefits generate a pervasive sense of modernization, fostering local aspirations to participate in consumption-oriented lifestyles akin to those in the Global North.
Yet, these gains often serve to mask the deeper externalities of extraction. When companies sponsor community festivals, youth scholarships or communal celebrations (see chapter 6.3), they project benevolence and partnership - while displacing critical debates about land dispossession, wage gaps, and ecological degradation. In other words, localized expressions of the imperial mode of living emerge. Communities accept limited compensations and partial social benefits in exchange for tacitly endorsing, or at least tolerating, ongoing extractive operations. The potency of these ideological and material strategies means that pressing issues, such as farmland loss or the cultural erosion of ancestral land ties, are frequently relegated to the margins of public discourse, overshadowed by the allure of improved roads, stable incomes, and sporadic development projects.

Further complicating this scenario is the gradual and insidious nature of socio-ecological harm, captured by Nixon's (2011) concept of slow violence. While companies provide discrete benefits - for example, annual medical checks and childcare allowances - the detrimental effects of mining unfold cumulatively over time. Chronic respiratory ailments tied to dust pollution, soil contamination from cyanide or mercury, and the slow loss of biodiversity are rarely dramatized as crises. Instead, these harms remain diffuse, emerging only in the longer run as communities register higher incidences of disease, infertile farmland, and degraded water sources (see chapter 6.4).

Crucially, such slow-acting damage does not often provoke immediate public outcry or strong government intervention, thus enabling companies to maintain their local foothold with minimal regulatory constraints. In this sense, the partial internalization of certain costs (healthcare for employees, sporadic community welfare interventions) inadvertently deflects attention from the systemic ecological devastation that builds incrementally. This dynamic is particularly evident where small-scale artisanal miners are cast as the main culprits of ecological harm, while large-scale operators sidestep accountability through CSR-driven narratives and selective compliance with ecological standards.

On a broader level, neo- extractivist practices (cf. Svampa, 2016) and dependency or world-system frameworks (cf. Frank, 1967; cf. Wallerstein, 1974, cf. 1986) elucidate how Ghana's political-economy remains locked into a peripheral position. Favourable tax regimes, weak enforcement mechanisms, and partial ownership stakes (e.g., Ghana's minority shares in foreign-led mining projects) converge to maintain export-oriented extractive industries. Although these arrangements boost foreign exchange inflows and, at times, government revenues, they typically fail to spur substantial local value addition or industrial diversification.

Companies reinforce their territorial power not only by operating infrastructure and social services but also by co-opting local labour and managerial elites, ensuring that potential critics are economically dependent on continued extraction (see chapter 6.2). Such alliances epitomize the "coerced consensus" that Landherr and Graf (2022) identify: local stakeholders, from chiefs to municipal authorities, often become entwined with corporate interests for economic or political gain. Meanwhile, the fundamental structural inequities in revenue distribution, wage structures, and ecological responsibilities remain intact, perpetuating the very conditions that resource curse theorists have long pointed out (cf. Auty, 1993; cf. Karl, 1997). The global economic architecture sustains weak regulatory environments and elite alliances, both of which are essential to the territorial power of corporations. These structures are not accidental - they are functional features of a global system that relies on peripheral resource extraction.

Taken as a whole, the findings reveal that internalization mechanisms in Ghana's large-scale mining sector serve as sophisticated legitimation devices that reconcile localized

social tensions without substantially undermining capital's hold on peripheral territories. By partially incorporating community and labour demands into corporate structures - through CSR, wage benefits, and co-optation - transnational companies avert overt conflict and gain social license to operate. However, the structures of exploitation remain, as do the cumulative ecological damage that evolve over time.
Moreover, the tension between symbolic improvements and enduring power asymmetries becomes particularly visible in interviews that highlight unfinished CSR projects, wage discrepancies between expatriates and local workers, and consistent reports of ecological contamination (see chapter 6.2 and 6.4). Local communities, chiefs, and municipal authorities are entangled in a system that offers limited immediate benefits while systematically passing on the slow-onset damages like land infertility, deforestation, public health threats onto populations left in a vulnerable situation.

Against this backdrop, one can conclude that partial internalization functions as a stabilizing force in Ghana's mining sector. It reduces friction, fosters a semblance of social progress, and embeds transnational operations more deeply into local political-legal frameworks. Yet, it neither negates the deeper resource curse dynamics nor dislodges Ghana's peripheral role in the global capitalist order. Instead, these mechanisms effectively manage discontent, mask slow-acting ecological crises. They sustain the illusion of inclusive development, an illusion that rests not only on visible income, infrastructure and employment gains, but also on the promise of cultural recognition and partnership. Yet this promise remains largely superficial: while companies sponsor, community centres and symbolic gestures of respect, the underlying hierarchies in land governance, wage structures and environmental risk distribution remain largely untouched.
To break out of this loop, far more transformative approaches would be required. Potential pathways include enforcing robust ecological regulations, mandating more equitable profit-sharing, and fostering genuine local industrialization that transcends enclave extraction. However, as empirical findings and theoretical frameworks suggest, such transformations face formidable obstacles in a global system that incentivizes peripheral extractivism. In the absence of these reforms, superficial conflict mitigation will likely persist as a temporary fix - one that leaves the cumulative socio-ecological burdens of mining largely in the hands of local communities, further entrenching Ghana's peripheral status in the modern capitalist world system.
Ultimately, the dynamics observed in Ghana's mining sector reveal a striking historical continuity. The extractive logics established before and during the colonial era reappear today in the global push for a 'green' economy, where the demand for critical minerals is once again met through peripheral extraction and externalized socio-ecological costs. What

is presented as a transformative sustainability transition often reproduces long-standing hierarchies: capital, expertise, and value accumulate in core economies, while ecological degradation and social disruption concentrate in mining regions. These continuities underscore that contemporary extraction does not mark a departure from earlier patterns but a reconfiguration of longstanding asymmetries.

The empirical analysis across chapter 7 demonstrates that internalization mechanisms function less as genuine solutions than as sophisticated strategies for stabilizing extractive regimes. Through selective social investments, targeted community engagement and the co-optation of traditional and local elites, transnational mining companies contain discontent while consolidating territorial authority. These measures offer limited socio-economic relief such as roads, scholarships, short-term employment, but leave intact deeper asymmetries in land governance, wage hierarchies, and the distribution of ecological risks. Internalization mechanisms thus operate primarily as instruments of conflict management, sustaining Ghana's peripheral position in global extractive circuits while shifting long-term socio-ecological costs onto local communities.

## 8. Conclusion: Internalization, Power and the Future of Extraction

This thesis examined how internalization mechanisms shape the socio-ecological impacts of large-scale mining in Ghana. The analysis revealed that extractive regimes are not a natural development pathway, but the product of politically and ideologically stabilized arrangements within the modern capitalist world-system. By combining world-system and dependency theory (Wallerstein 1974; Frank 1967; dos Santos 1970; Quijano 2000), neo-extractivist critiques (Svampa 2016; Lessenich 2016), and the concepts of territorial power, ideological legitimation, peripheral imperial mode of living, and slow violence (Landherr/Graf 2019, 2021; Brand/Wissen 2017; Nixon 2011), this study demonstrates that socio-ecological burdens are systematically shifted onto mining communities, while decision-making authority and economic benefits flow primarily to transnational companies and allied elites. Empirically, the study showed how territorial power, labour regimes, CSR practices, socio-ecological harm and cultural transformations interact in the Tarkwa mining corridor. These dynamics form the concrete operational terrain through which internalization mechanisms are enacted and experienced.

The findings allow three core conclusions aligned with the guiding sub-questions:

1. Internalization mechanisms legitimise extraction by absorbing visible socio-ecological costs while leaving structural inequalities intact.
2. They generate uneven local impacts, stabilising livelihoods for some while producing cumulative slow violence for others.
3. Their form and effectiveness are shaped by Ghana's peripheral integration into global extractive markets, which conditions governance choices and benefit distribution.

Taken together, these findings directly answer the guiding research question: internalization mechanisms do not resolve socio-ecological tensions but stabilise extractive dependency by selectively managing, deferring, or redistributing its costs. The findings show how corporate actors consolidate quasi-sovereign authority by embedding themselves in local governance structures, contracting community labour, co-opting traditional leaders, and selectively providing basic services. These internalization mechanisms offer visible but limited socio-economic gains such as income stability, infrastructure repairs, or selective scholarship programmes, while leaving deeper structural inequities untouched. As such, they operate less as genuine solutions than as techniques of conflict containment that maintain the extractive order's legitimacy.

Viewed through Brand and Wissen's (2017) peripheral imperial mode of living, these dynamics illuminate how communities become culturally and materially tied to extractive modernity, embracing partial benefits while absorbing disproportionate socio-ecological harms.

Meanwhile, Nixon's (2011) notion of slow violence clarifies why socio-ecological degradation, health impacts, and cultural loss rarely provoke immediate political resistance: their incremental and dispersed nature allows extraction to proceed without sustained scrutiny. In sum, internalization mechanisms forge a fragile equilibrium, one that stabilizes mining operations but defers, obscures, or redistributes the socio-ecological costs. Conceptually, the thesis advances debates on internalization mechanisms by extending Landherr and Graf's framework beyond the Latin American context and applying it systematically to Ghana's large-scale mining sector. Empirically, it contributes a fine-grained analysis of how territorial power, labour regimes, CSR practices, socio-ecological harm and cultural transformations intersect in the Tarkwa mining corridor, highlighting how selective benefits and slow violence are co-produced. Methodologically, the study demonstrates the value of combining world-system and dependency perspectives with qualitative case study research, showing how global extractive structures can be traced through everyday practices, governance arrangements and local perceptions.

## *8.1 Implications for Theory and Policy*

### *8.1.1 Governance Limits*

The Ghanaian case underscores the limits of governance reform within a global system that structurally privileges raw material extraction. Even where environmental impact assessments, CSR initiatives, or community consultations exist, they are embedded in a development paradigm that equates progress with deeper integration into global commodity chains. Participation often becomes procedural rather than substantive, functioning as a mechanism that manages dissent rather than redistributing power.
This institutional architecture reproduces what Frank (1967) termed the 'development of underdevelopment', whereby states appear to modernize through extraction while dependency deepens, regulatory authority erodes and decision-making shifts toward corporate and transnational actors.

### *8.1.2 Sustainability Contradictions*

The so-called green transition intensifies these patterns of internalization, whereby socio-ecological costs, land use conflicts, and environmental degradation are increasingly displaced onto peripheral extraction regions. As industrialized countries accelerate decarbonisation, demand for “critical minerals” (OECD 2016) rises sharply. Countries like Ghana are positioned as ecological sacrifice zones for a global sustainability project - a process Fairhead et al. (2012) describe as “green grabbing.”

While carbon footprints shrink in the Global North, socio-ecological degradation, land dispossession, and resource depletion intensify in the Global South. This reflects an “unequal division of ecological labour” (Landherr/Graf 2021: 47), in which ecological responsibilities are exported while material benefits are imported.

#### *8.1.3 Justice Beyond Compensation*

The findings also reveal the limits of distributive responses such as compensation, royalties, or CSR. Procedural inclusion remains weak; many dispossessed farmers, precarious workers, and marginalized groups, especially women and youth, lack meaningful influence over decisions that affect their land, livelihoods, and futures (Ayelazuno 2014; Wan 2013). From a post-development perspective, justice requires more than better compensation. It requires recognition of alternative ontologies and development models that prioritise socio-ecological integrity, communal autonomy, and diversified livelihoods (Escobar 2016; Svampa 2016).

Post-development scholars argue for pluriversal alternatives that decentre growth-oriented extractivism and emphasize ecological and communal autonomy that depart from growth-oriented extractivism (cf. Acosta, 2017; Escobar, 2018). Such perspectives highlight alternative models centred on ecological integrity, communal autonomy and diversified livelihood systems, offering imaginaries that contrast sharply with the dominant commodity-export paradigm.

This affirms a central argument of this thesis: internalization mechanisms stabilize extractive dependency rather than transform it.

### ***8.2 Practical Implications and Pathways for Change***

While structural change cannot be achieved through technical reforms alone, several policy directions emerge:

I. **From CSR to Structural Accountability**
   Voluntary CSR has limited impact. More robust frameworks are needed to enforce ecological remediation, guarantee livelihood alternatives, and ensure benefit-sharing. Without such obligations, CSR functions less as a vehicle for structural change and more as a mechanism of colonial containment - managing tensions

while leaving intact the deeper power asymmetries that sustain extractive dependency.

II. **Embedding Global Responsibility**

Due diligence frameworks in the EU and OECD provide partial steps but insufficient redistribution. A critical development approach calls for redistributive sustainability: the ecological and social costs of mineral-based decarbonisation in the North must be compensated through long-term financial transfers, technology access, and fairer trade regimes.

III. **Strengthening Local Counter-Power**

Regulatory agencies such as the Minerals Commission or the Environmental Protection Agency often lack autonomy or political leverage. Strengthening locally rooted counter-power such as unions, women's groups, grassroots monitoring initiatives, and community-based ecological justice movements is essential. Only when affected communities themselves hold institutional and political weight can oversight become meaningful. Without such localized counter-power, top-down reforms risk reinforcing dependency rather than alleviating it.

IV. **Exploring Post-Extractivist Alternatives**

Beyond regulatory fixes, Ghana faces a deeper strategic question: should development remain tethered to mineral exports? Post-extractivist thinking argues for alternative pathways grounded in agroecology, local value creation, economic diversification, and strengthened social provisioning. These approaches are not anti-development; they reimagine development around ecological and social well-being and local autonomy rather than in dependence on volatile global commodity markets.

### *8.3 Theoretical and Comparative Outlook*

The findings of this thesis carry implications beyond Ghana, while remaining grounded in a specific national and historical context. Ghana represents neither an exceptional nor a marginal case, but a consolidated extractive economy characterised by long-standing integration into global commodity markets, relatively strong formal institutions, and hybrid governance arrangements involving state actors, corporations, and traditional authorities.

It is precisely this combination that makes Ghana a revealing case for analysing internalization mechanisms as stabilising features of global extractive capitalism rather than as outcomes of institutional weakness or governance failure.
Comparative research across resource frontiers such as lithium in Chile, cobalt in the DRC, or bauxite in Guinea could clarify how internalization mechanisms vary across commodities, governance regimes, and historical trajectories, or whether they represent recurrent features of global extractive capitalism. Future work should also foreground epistemologies from the Global South, feminist political ecology, Indigenous cosmologies, and post-development frameworks to articulate alternatives that challenge the ontological foundations of extractivism rather than merely reforming its symptoms (cf. Escobar 2016).

At a more macro level, Ghana's peripheral integration into global markets illustrates how internalization mechanisms operate across scales. At the macro level, peripheral integration into global markets reproduces dependency; at the micro level, mining communities navigate daily ambivalences between temporary gains and enduring socio-ecological harm. Linking these levels, internalization mechanisms stabilise extraction by deferring structural change. This multi-scalar dynamic is likely not unique to Ghana, but characteristic of extractive economies embedded in global capitalist structures.

As discussed in the empirical chapters, the green transition reshapes contemporary extractive dynamics. Viewed from a longer historical perspective, these dynamics reveal striking continuities between past and present extractive regimes. As colonial mineral economies once powered industrialization in Europe while externalizing ecological and social harms to African territories, today's green transition risks reproducing these asymmetries in a new idiom. The 21st-century demand for "transition minerals" does not signify a rupture but a recalibration of extractive relations. These continuities underscore that contemporary extraction does not mark a departure from earlier patterns but a reconfiguration of longstanding asymmetries

Against this background, debates on post-extractivist and pluriversal alternatives gain renewed relevance. A just future, as this thesis suggests, requires more than cleaner extraction, but reimagining development beyond extractivism. Pluriversal alternatives within post-development thinking emphasize socio-ecological integrity, communal autonomy, and diversified livelihood systems as guiding principles for reorienting development trajectories. These are not utopian add-ons but necessary conditions for transforming resource wealth into equitable and sustainable futures. Only if national policy and global governance jointly commit to redistributive, justice-oriented approaches can extractive economies move beyond the entrenched patterns of dependency and socio-ecological degradation outlined in this thesis.

Ultimately, the analysis underscores that without confronting the internalization mechanisms that stabilise extractive dependency, neither technical reforms nor sustainability rhetoric will alter the fundamental socio-ecological inequalities at the heart of Ghana’s mining economy. The central contribution of this thesis is therefore to show that transformation requires not the refinement of extractive governance, but the rethinking of development beyond extractivism itself.

## 9. List of References


Aboka, Emmanuel, Jerry, Cobbina, Samuel, Dzigbodi & Doke, Adzo (2018). Review of ecological and health impacts of mining in Ghana. *Journal of Health Pollution, 8*(1), 43–52.

Acosta, Alberto (2017). *Buen vivir: Vom Recht auf ein gutes Leben*. Oekom Verlag.

Addo-Fening, R. (2013). Ghana under colonial rule: An Outline of the Early Period and the Interwar Years. *Transactions of the Historical Society of Ghana*, 15, 39-70. URL: http://www.jstor.org/stable/43855011.

Agariga, Gabriel M., Oteng-Ababio, Martin & Agyemang, Emmanuel (2021). The socio-economic and ecological impacts of large-scale mining on local communities: A case study of Ahafo. *International Journal of Ecological Studies, 78*(5), 845-861.

Alimonda, Héctor (2011). *La naturaleza colonizada: Ecología política y minería en América Latina*. CLACSO.

Altvater, Elmar (1992). *Der Preis des Wohlstands: Ökologische Zukunftsprobleme der Industrialisierung*. Westfälisches Dampfboot.

Amponsah-Tawiah, Kwasi & Dartey-Baah, Kwasi (2011). The mining industry in Ghana: A blessing or a curse. *International Journal of Business and Social Science, 2*(12), 62-69.

AngloGold Ashanti. (2025). Company Profile and ESG Report. URL: https://www.anglogoldashanti.com.

Appiah, Dominic Osei & Osman, Bashiru (2014). Environmental impact assessment: Insights from mining communities in Ghana. *Journal of Ecological Assessment Policy and Management, 16*(4). https://doi.org/10.1142/S1464333214500318.

Asante, Richard & Debrah, Emmanuel (2017). China and Africa relations: Making their lunch or eating it? *Journal of African Political Economy and Development, 2*(1).

Auty, Richard (1993). *Sustaining development in mineral economies: The resource curse thesis*. Routledge.

Ayelazuno, Jasper Abembia (2014). The 'new extractivism' in Ghana: A critical review of its development prospects. *The Extractive Industries and Society*, 1(2), 292-302. https://doi.org/10.1016/j.exis.2014.04.008.

BBC (2023). *Ghana country profile*. URL: https://www.bbc.com/news/world-africa-13433790.

Bechtum, Alexandra (2021). Industrieller Goldbergbau und ländliche Entwicklung: Eine Analyse des politischen Einflusses transnationaler Bergbauunternehmen im südlichen Patagonien. *Prokla, 204(3)*, 477-495.

Brand, Ulrich & Wissen, Markus (2017). *Imperiale Lebensweise: Zur Ausbeutung von Mensch und Natur im globalen Kapitalismus*. Oekom.

Carmody, Pádraig (2013). *The rise of the BRICS in Africa: The geopolitics of South-South relations*. Zed Books.

Cawood, Frederick (2017). Policy implications and sustainable development strategies. *International Journal of Mining, Reclamation and Environment, 31*(5), 311-327.

Davies, Oliver (2025). *Resources and power*. Britannica. URL: https://www.britannica.com/place/Ghana/Resources-and-power

Davies, Oliver (2025). *Ghana*: *History*. Britannica. URL: https://www.britannica.com/place/Ghana/History dos Santos, Theotonio (1970). The structure of dependence. *The American Economic Review*, 60(2), 231-236.

Escobar, Arturo (2016). *Encountering development: The making and unmaking of the Third World* (Original work published 1995). Princeton University Press.

EU - European Commission (2019). *Energy and the Green Deal*. URL: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/energy-and-green-deal_en.

Fatima, Tasnim & Elbanna, Said (2023). Corporate social responsibility and firm performance: The moderating role of strategic alignment. *Journal of Business Research, 132*, 322-331.

Fairhead, James, Melissa Leach & Ian Scoones (2012). Green Grabbing: a new appropriation of nature? *The Journal of Peasant Studies*, *39*(2), 237–261. https://doi.org/10.1080/03066150.2012.671770.

Frank, Andre Gunder (1967). *Capitalism and underdevelopment in Latin America: Historical studies of Chile and Brazil*. Monthly Review Press.

Galtung, Johan (1972). Imperialism and the structural theory of violence. Dieter Senghaas (Ed.), *Imperialismus und strukturelle Gewalt*, 29-104. Suhrkamp.

GCM - Ghana Manganese Company (2025). URL: https://www.ghanamanganese.com.

Geenen, Sara (2019). Local content policies in the mining sector: Lessons, challenges, and new directions. *Resources Policy, 63*, 101433.

German Trade & Invest (GTI) (2023). *Wirtschaftsdaten kompakt: Ghana*. URL: https://www.gtai.de/resource/blob/14860/e48f2965a410512d66042f56b66af11e/GTAI-Wirtschaftsdaten_Dezember2023_Ghana.pdf.

González, Andrea, Mabey, Chris & Opoku-Ware, John (2021)*. Manganese matters: A metal of consequence for women and communities in South Africa affected by mining and the global energy transition.* Amsterdam: Action Aid/Somo.

Golden Star Resources (2021). *Wassa Technical Report*. URL: https://www.gsr.com.

Graf, Jakob et al. (2020). Abhängigkeit im 21. Jahrhundert: Globale Stoffströme und internationale Arbeitsteilung. *Prokla, 50(1)*, 11–32.

Gudynas, Eduardo (2019). Extractivisms: Tendencies and Consequences. In Martín Ramírez/Stefan Schmalz (Eds.), *Extraktivismus in Lateinamerika* (pp. 19–38). Oekom.

Hilson, Gavin & Maconachie, Roy (2019). The evolution of CSR in large-scale mining operations in sub-Saharan Africa. *Resources Policy, 62*, 254-265.

Karl, Terry Lynn (1997). *The paradox of plenty: Oil booms and petro-states*. University of California Press.

Konadu, K. & Campbell, C. (2016). *The Ghana Reader: History, Culture, Politics*. Duke University Press.

Landherr, Anna & Graf, Jakob (2017). Neoliberale Kontinuität im politischen Wechselwind: Die Macht der besitzenden Klasse Chiles über die extraktivistische Ausrichtung des Landes. *Prokla, 47(4)*, 569–585.

Landherr, Anna & Graf, Jakob (2019). Über uns die Sintflut: Zu Klassenverhältnissen in der Internalisierungsgesellschaft am Beispiel Chiles. *Prokla, 49(3)*, 487–493.

Landherr, Anna & Graf, Jakob (2019). Territorial power and the peripheral imperial lifestyle: Internalization mechanisms in the Chilean mining town of Tierra Amarilla. *Journal of Latin American Geography, 18*(1), 1-16.

Landherr, Anna & Graf, Jakob (2021). Territoriale Macht und periphere imperiale Lebensweise: Internalisierungsmechanismen in der chilenischen Bergbaustadt Tierra Amarilla. *Prokla*, 51(2), 44-69.

Lee, Ching Kwan (2017). *The specter of global China: Politics, labor, and foreign investment in Africa*. Chicago: University of Chicago Press.

Lessenich, Stephan (2016). Neben uns die Sintflut: Die Externalisierungsgesellschaft und ihr Preis. Hanser Berlin.

Lund, Christian (2006). Twilight institutions: Public authority and local politics in Africa. *Development and Change, 37*(4), 685-705. DOI: https://doi.org/10.1111/j.1467-7660.2006.00497.x

Luning, Sabine & Pijpers, Robert Jan (2017). Governing access to gold in Ghana: In-depth geopolitics on mining concessions. *Africa, 87*(4), 758-779.

Marini, Ruy Mauro (1974). Dialéctica de la dependencia. Ediciones Era.

Mabey, Christopher, Opoku-Ware, John & Mensah, Philip (2020). Deforestation, soil erosion, and biodiversity loss: Impacts of mining activities in Ghana. *Ecological Research, 185*, 109457.

Mayring, Philipp (2019). Qualitative Content Analysis. Demarcation, Varieties, Developments. *Forum: Qualitative Social Research*, 20(3), 16. DOI: http://dx.doi.org/10.17169/fqs-20.3.3343.

Mensah, Anthony Kwasi et al. (2015). Ecological impacts of artisanal mining in Ghana. *Ecological Science and Pollution Research, 22*(23), 18774-18784.

Minerals Commission (2022). About the Minerals Commission. Republic of Ghana, Ministry of Lands & Natural Resources. https://mlnr.gov.gh/agency/minerals-commission/

Nixon, Rob (2011). Slow violence and the ecologicalism of the poor. Harvard University Press.

OECD - Organization for Economic Cooperation and Development (2016). Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. URL: https://www.oecd.org/en/publications/oecd-due-diligence-guidance-for-responsible-supply-chains-of-minerals-from-conflict-affected-and-high-risk-areas_9789264252479-en.html.

Quijano, Aníbal (2000). Coloniality of power, Eurocentrism, and Latin America. *Nepantla: Views from South*, 1(3), 533-580.

Rajak, Dinah (2011). *In good company: An anatomy of corporate social responsibility*. Stanford University Press.

Roesler, Jörg (2009). *Kompakte Wirtschaftsgeschichte Lateinamerikas vom 18. bis 21. Jahrhundert.* Leipziger Universitätsverlag.

Ross, Michael (1999). The political economy of the resource curse. *World Politics*, 51(2), 297-322.

Sachs, Jeffrey & Warner, Andrew (1995). Natural resource abundance and economic growth. *National Bureau of Economic Research*.

Shubita, Muath, Ahmed, Seif & Essel-Paintsil, Michael (2022). The economic impact of corporate social responsibility on the development of indigenous communities: Evidence from Ghana's mining sector. *The International Journal of Organizational Analysis*. https://doi.org/10.1108/ijoa-10-2021-2985.

Smith, David (2013). Employment and labor dynamics in the African mining industry. *Journal of African Business, 14*(3), 164-179.

Svampa, Maristella (2015). Neuer Entwicklungs-Extraktivismus, Regierungen und soziale Bewegungen in Lateinamerika. Julia Roth (Ed.), *Lateinamerikas koloniales Gedächtnis: Vom Ende der Ressourcen, so wie wir sie kennen*, 153-184. Westfälisches Dampfboot.

Svampa, Maristella (2016). *Neo-Extractivism in Latin America: Socio-Ecological Conflicts, the Territorial Turn, and New Political Narratives*. Cambridge University Press.

Ubink, Janine (2007). Traditional authority revisited: Popular perceptions of chiefs and chieftaincy in peri-urban Kumasi, Ghana. *Journal of Legal Pluralism, 55*, 123-161.

Usman Kaku, Osei & Agyemang, Emmanuel (2021). The socio-economic and ecological impacts of mining in the Atiwa Forest Reserve and Ellembelle District. *Ecological Management, 58*(2), 401-417.

Wallerstein, Immanuel (1974). *The modern world-system I: Capitalist agriculture and the origins of the European world-economy in the sixteenth century*. Academic Press.

Wallerstein, Immanuel (1986). *The modern world-system II: Mercantilism and the consolidation of the European world-economy, 1600–1750*. Academic Press.

Wan, Pei Man Jessica (2013). *Environmental justices and injustices of large-scale gold mining in Ghana*. University of *Oxford Department of International Development*.

Wegenast, Tim, Awojobi, Oladayo & Basedau, Matthias (2019). Employment effects of Chinese mining operations in sub-Saharan Africa. *Journal of Development Studies, 55*(10), 2182-2203.

Wellmer, Friedrich & Sinding-Larsen, Richard (2016). *Non-Renewable Resource Issues. Geoscientific and Societal Challenges.* Springer.

World Bank (2022). *Data on Ghana*. URL: https://data.worldbank.org/country/GH.

Zhao, Suisheng (2014). A neo-colonialist predator or development partner? China’s engagement and rebalance in Africa. *Journal of Contemporary China, 23*(90), 1033-1052.

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- **Figure 4:** Monthly salaries in USD for fixed-contract employees at Chinese-owned manganese company, categorized by role. Excavator operators receive the highest wage at $924.83, while dump spotters earn the lowest at $789.84. The uniform salaries for dump truck, bulldozer, and grader operators ($868.84) highlight standardized pay structures within similar operational categories. Data (2021) received from anonymous university employees in the mining area in Tarkwa.

## 10. Appendix and Photographic Documentation

| Picture Code | Location / Site | Description | Source / Date |
|---|---|---|---|
| T1-T3 | Tarkwa: Access Road | Road leading into Tarkwa from Takoradi (Port) | Field observation, 2022 |
| T4 | Tarkwa: Town Centre | New road construction in Tarkwa town | Field observation, 2022 |
| T5 | Tarkwa: Landscape View | View from afar with open pit visible on horizon | Field observation, 2022 |
| T6 | Tarkwa: Chief's Office | Entrance to the chief's office in Tarkwa | Field observation, 2022 |
| T7 | Tarkwa: Community Centre | Construction of a new community gathering house | Field observation, 2022 |
| T8 | Tarkwa: Residential Area | Interview location at a resident's house, contaminated lake behind | Field observation, 2022 |
| T9 | Tarkwa: SSM Site | Overview of a small-scale mining site under Chinese control; green shipping containers in background | Field observation, 2022 |
| T10 | Tarkwa: Wastewater Pool | Toxic runoff at SSM site contaminating local water sources | Field observation, 2022 |
| T11 | Tarkwa: Worksite Entry | Sandbags at SSM processing area; no safety measures | Field observation, 2022 |
| T12 | Tarkwa: Extraction Machinery | Rudimentary machinery for gold extraction | Field observation, 2022 |
| T13 | Tarkwa: Miner Washing | Miner washing body and clothes with untreated water at site | Field observation, 2022 |

| Picture Code | Location / Site | Description | Source / Date |
| --- | --- | --- | --- |
| T14 | Tarkwa: Wastewater Seepage | Contaminated water pooling with minimal containment | Field observation, 2022 |
| T15 | Tarkwa: SSM Adjacent to LSM | Barren landscape and water pollution near LSM site | Field observation, 2022 |
| A1 | AngloGold Ashanti | Overview from afar with pit | Field observation, 2022 |
| A2 | AngloGold Ashanti | Pit of AngloGold Ashanti mine | Field observation, 2022 |
| A3 | AngloGold Ashanti | Entrance to AngloGold Ashanti | Field observation, 2022 |
| A4-A5 | AngloGold Ashanti | Large excavators around pit | Field observation, 2022 |
| A6-A7 | AngloGold Ashanti | Safety and informational signage | Field observation, 2022 |
| A8 | AngloGold Ashanti | Water body near mine site | Field observation, 2022 |
| GCM1 | Ghana Manganese Company | Mine entrance with COVID-19 precaution signs | Field observation, 2022 |
| GCM2-GCM4 | Ghana Manganese Company | Safety and ecological slogans displayed at site | Field observation, 2022 |
| GCM5-GCM6 | Ghana Manganese Company | Company-provided worker housing | Field observation, 2022 |

| Picture Code | Location / Site | Description | Source / Date |
|---|---|---|---|
| GCM7 | Ghana Manganese Company | Company bus for worker transport. | Field observation, 2022 |
| GCM8-GCM9 | Ghana Manganese Company | Stationary train and unused tracks | Field observation, 2022 |
| GCM10 | Ghana Manganese Company | Entrance to mining area with barrier gate | Field observation, 2022 |
| GCM11 | Ghana Manganese Company | Aerial view of mine site with researcher | Field observation, 2022 |
| GCM12 | Ghana Manganese Company | Mine site with large excavator | Field observation, 2022 |
| GS1-GS2 | Golden Star Wassa | Mine entrance Golden Star Wassa Mine | Field observation, 2022 |
| GS3 | Golden Star Wassa | Cancer awareness sign | Field observation, 2022 |
| GS4-GS6 | Golden Star Wassa | Mining area overview | Field observation, 2022 |
| GS7 | Golden Star Wassa | Modern Pool within mining area close to Cantine | Field observation, 2022 |
| GS9 | Golden Star Wassa | Water pipeline infrastructure | Field observation, 2022 |

T1:

T2:

T3:

T4:

T5:

T6:


ASENAMAN KOTOKO DIVISIONAL
COUNCIL
(ESUASO STOOL) BOX:173 TARKWA

T 7:


T8:

T9:

T10:

T11:

T12:

T13:

T14:

T15:

A1:

A2:

A3:

A4:

A5:

A6:


GHANA HEALTH SERVICE
TEBEREBIE
HEALTH CENTER
TARKWA - NSUAEM

A7:


A8:

GCM1:

GCM 2:


GMC ESTATE OFFICE
UNSAFE ACT
NO USING OF MOBILE WHILE DRIVING
GMC
REPORTED
IN OUR WORKPLACE......
HUMOR IS APPRECIATED
HORSEPLAY IS.......
UNSAFE ACT
ARE THE MEN DOING SOMETHING WRONG?
IF YES WHAT AM I GOING TO DO ABOUT IT NOW?
GMC

GCM 3:


AROUND HERE
WE CARE FOR
SAFETY AND ENVIRONMENT
A HAPPY FAMILY
HEALTHY LIFE STYLE
HEALTHY
ENVIRONMENT
GMC
PROTECT ANIMALS
DON'T DRIVE OVER THEM
GMC

GCM 4:


UNSAFE ACT
GMC
PROTECT ENVIRONMENT
PROTECTING
ENVIRONMENT
IS A SHARED
RESPONSIBILITY
THE STANDARD YOU WALK PASS IS THE STANDARD YOU SET

GCM5:

GCM6:

GCM 7:

GCM 8:

GCM9:

GCM 10:

GCM11:

GCM12:

GCM13:

GS1:

GS2:

GS3:

GS 4:

GS5:

GS6:

GS7:


GS8: