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The Corporate Social Responsibility of the Mining Companies in Safeguarding the Natural Resources: A Legal Study with a Special Reference to Ghana

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Abstract

The environment, its natural resources, and development capability continue to be contested issues in human society's growth process. Ghana, like Africa and other developing countries, is heavily reliant on natural resources for economic growth and development. This environment and natural resource exploitation process is directly immersed in the mining of gold resources. While mining firms tout their contributions to development and social services, local populations oppose and demand an end to large-scale gold mining on their "land." The study studies incidents of company-community disputes over gold mining and the underlying causes, dispute resolution procedures, and shortcomings in the present framework using an informant data gathering approach and secondary data collection. Cases involving compensation and resettlement packages Unfulfilled promises, distrust, and a lack of alternative alternatives for economically displaced populations. The findings revealed that mining corporations worldwide were selective in their CSR disclosures, disclosing more qualitative information than quantitative information, despite the latter being more objective and helpful to stakeholders. Furthermore, our research revealed a misalignment between the priority of the gold mining industry's CSR themes and local communities' concerns regarding sustainable mineral development. The conflict resolution technique is also criticised for being too bureaucratic, disconnected from the cultural and social complexities of local communities, and solely focused on the interests of the enterprise. The study suggests a new framework that considers communities as important but not peripheral to the overall national framework, as well as preserving and improving local alternatives. Plans for sustainable development that are co-designed by the community and directed by the community.

Key Words: Economic Growth and Development., CSR Disclosures, Environmental Resources, Company-Community Disputes, Quantitative Information, Sustainable Mineral Development.

Introduction

Mining's environmental repercussions, such as the destruction of substantial areas of forest cover and productive topsoil, as well as leaching in water bodies, are sometimes used as "breeding grounds" but are not the real expression of conflict. Even if communities are aware of the challenges, additional factors such as poor communication, violated mining potentials, and a lack of working agreements between miners and societies intensify tensions. Perception, as mentioned before in the study of conflict, is a critical factor in the relationship between mining and conflict. Degradation caused by mining, defilements of human rights, forcible evictions and critically examine India's mining law structure. It will begin by providing a quick introduction of the sector and its legal structure. Second, it shall prove that the set of legislative adjustments made in recent years (between 2015 and 2021), prioritising the expansion of ease of doing commercial has failed to suitably address industry sustainability issues. Third,

utilising the notions of mineral tenure security and the ‘social licence to operate,' it will present a hypothetical case for why achieving the two aforementioned policy objectives does not have to be regarded as a trade-off, given the nature of the Indian mining sector. Fourth, it shall suggest a variation to the legislature that would recover its ability to guarantee sector sustainability**.**

Factually, the mining sector has taken a 'devil may care' method close the significances of its activities, working in places with little social legitimacy, wreaking massive destruction, and then departing after all commercially useful resources have been depleted. Cost benefit language is frequently used to justify harm in one location since the total financial advantages outweigh it (Jenkins, 2004). However, in recent years, the global mining sector has addressed its social and environmental obligations; a variety of reasons have contributed to this, and the extractive industry is now a significant player in discussions about social and environmental sustainability (Cowell et al., 1999). Mining firms' Corporate Social Responsibility (CSR) programmes typically focus on community projects because to their economic, social, and environmental effect. and in environmental terms is felt most strongly at the local level.

The effectiveness of CSR programmes in the oil, gas, and mining industries, on the other hand, has been called into doubt (Frynas, 2005). While multinational mining corporations have'remodeled' themselves as good corporate citizens, there is little evidence of how this recognition of the need to address sustainability issues has affected communities, or whether community development initiatives have been effective in contributing to more maintainable societies. There is a concern that by engaging in CSR, a dependence on the establishment would cultivate. This can have major effects for the dependent community, whether deliberate or inadvertent, especially when the mine shuts.

This dissertation examines the community development practises of large-scale mining businesses through a case study of two multinational mining companies operating in Ghana's Western Region, West Africa. Mining firms, with a focus on how they may cause community reliance. The study opens with an overview of CSR in the mining industry, corporate community activities, and the national, regional, and local mining dependence issues.

Conceptualising Mining Conflicts and the Company-Community Interface

The developing world continues to rely heavily on environmental or natural resources for development. In this sense, the environmental concern has frequently been linked not just to the topic of sustainability, but also to the large-scale industry consequences on livelihoods and distributional costs on communities and small towns that are more vulnerable. Minerals such as gold and diamonds, as well as forest and water resources, are among the various natural resource investments available. The importance of the environment and its related concerns is worth it in Africa, a continent with possibly a higher part of the world's natural resources, due to the economic, cultural, social, and political ramifications of its utilisation. Among these resources, the extractive industry, particularly the gold mining sector, has remained one of the most important. The most influential in developing local communities and metropolitan regions. The mining industry has been at the centre of significant debate and conflict regarding its development capabilities (Yelpaala and Ali, 2005) and destructive actions. It has been blatantly criticised for its bad influence on the environment (Hilson 2002) and its involvement in conflict and underdevelopment (Ross, 2001) in various towns and cities throughout the continent. The nearby environment benefits greatly from gold mining, and cities such as

Johannesburg stand to benefit from gold mining. On the other hand, special consideration has been paid to the environmental consequences of gold mining in terms of soil pollution, land degradation, and community burden. (Yelpaala and Ali 2005) discuss the relationship between members and water quality. The topic of disputes arises within the framework of these long-running discussions about gains and losses, advantages and costs in connection to the environment. Recognising the advantages and costs, as well as the accompanying consequences on livelihood, has frequently led in heated debates, sometimes resulting in investor-community environmental issues about the costs and benefits of gold mining, which is an essential element of it. In Ghana, it has become exceedingly difficult for mining firms that rely on vast swaths of land to function to coexist with indigenous tribes whose livelihoods are inextricably linked to the land on which they live. This seeming incompatibility has resulted in disputes/conflicts by their actions on worsening hostilities and reactivating dormant disputes through their procedures. These conflicts normally concern livelihood security, access to resources, ownership, use or degradation, environmental effects, gendered impact, impact on social cohesion and cultural beliefs, human rights violations and distribution of risks and benefits and the meaning of development (Bebbington et al., 2008; Hilson, 2002, Kemp et al., 2010).

Industry Overview

The mining and quarrying industry, recognized as one of the key sectors of the Indian economy, contributed 1.63% of Indian Gross Value Added (GVA) in the fiscal year 2020-21.[1] India is the world's second major coal and crude steel producer, ranking fifth in overall volume of mineral production[2] and seventh in value of production [3].It produces 95 minerals [5], many of which supply raw materials to downstream sectors such as electricity generation, infrastructure, and a variety of manufacturing operations such as vehicles, cement, and chemicals.[6] The country has 1332 reporting mines in 2020-21, [7] and the industry is characterised mostly by a high number of tiny active mines.[8] Demolitions have an impact on how mining is regarded and contribute to pollution.

Many businesses are becoming more conscious of the sustainability concerns that their increasingly complicated supply networks face. Climate change, particularly extreme weather events, environmental harm such as habitat loss or pollution, as well as social, safety, labour practise, and human rights concerns, are among the dangers (Reed and Willis 2012). In response to these risks, industry, governments, and civil society have advocated for new voluntary and regulatory standards to improve the sustainability of raw material production and sourcing, manufacturing and business practises, supply chain transparency, and supply chain impacts. As a result, there are an increasing number of standards and efforts. Some are industrial and mineral-specific, while others are cross-industry in nature. These are attempts to improve social and environmental standards.

This begins with encouraging ratification and implementation of existing international conventions and standards relevant to the extractives sector, such as the Indigenous and Tribal Peoples Convention (ILO 169), the Minamata Convention on Mercury, and the United Nations Guiding Principles on Business and Human Rights. Diplomatic initiatives, applying these standards at home to improve credibility and provide lessons learned for implementation, and supporting implementation as part of bilateral and multilateral development cooperation would all be part of these efforts. For example, the United Nations Human Rights Council approved the UN Guiding Principles in 2011, and member states were asked to prepare and implement National Action Plans. Only six organisations have finished the implementation procedure.

Foreign policymakers can take the opportunity to improve current standards in addition to promoting them.

This opportunity and point out governance shortcomings, arguing for a review of existing standards or the introduction of new ones. The general dynamics of increased public pressure, more open businesses, and an increasing number of voluntary sustainability initiatives could be used and supplemented by advancing the normative framework through soft instruments that carry authority and provide guidance, such as OECD guidelines, as well as harder legal instruments that set mandatory standards and advance the ideal of a global level playing field with higher standards for all.

Gold prices are skyrocketing in 2012 due to strong demand and limited supply. Because of the present financial market turmoil, investors have renewed their interest in gold investments at the expense of other assets like as bonds and shares. Furthermore, the price trend has been fueled by strategic reserve holdings decisions by advanced western economies to halt the sale of their gold reserves, while emerging markets are acquiring gold holdings to protect their wealth during a period of global financial crisis. Gold supply has not kept pace with surging demand. Recent gold mine production has depended on lower grade ores, which have had major negative environmental and socioeconomic consequences. It also makes extensive use of resources. Lower grade ores have raised mining risk and posed a significant threat to the worldwide sustainability of gold mining. The gold mining industry has responded by demonstrating its voluntarily moral and ethical approaches of sustainable mineral development through Corporate Social Responsibility (CSR). Ghana, a gold-rich West African country, is similarly witnessing these rising patterns in other mineral-rich countries. This study describes the global to local operationalization and efficacy of the gold industry's CSR. The worldwide level CSR practises of the top ten global mining corporations listed by market capitalization were investigated using a content analysis of corporate public disclosures. The research also looked on the compatibility of the priority of gold industry's responsible gold mining themes with the concerns of local people concerning responsible mineral development. Two content assessments were conducted at the local level. The first was to examine the public perception of gold mining concerns as represented by 1,156 articles from both public and private newspapers accessible on the Ghana online database. The second content analysis compares Ghana's new Minerals and Mining Act of 2006 to international best practises for mineral investment and developing best practises for sustainable mineral development. Furthermore, the contributions of one major gold mining firm, Newmont Ghana Gold Limited NGGL programs/projects to the long-term development of the Ahafo mine local community were assessed using the seven questions to sustainability (7QS), a sustainable development framework.

The content study of government-owned and privately-owned publications in Ghana identified 22 gold mining concerns of the five primary stakeholders (government, gold mining sector, unlicensed/unregistered miners, non-governmental organisations (NGOs), and communities). The investigation also revealed disparities in the prioritisation of mining sustainability concerns by public and private publications, as well as an increase in public interest in gold mining. Furthermore, an examination of Ghana's Minerals and Mining Act of 2006 revealed that it is compliant with worldwide best practises for mining investment but is notably incompatible with a suggested sustainable mineral development model. As a result, Ghana's new Minerals and Mining Act of 2006 undermines communities while strengthening investors. Finally, an examination of NGGL's CSR initiatives revealed that their programmes benefited the local community. There is a need, however, for the implementation of natural

resource preservation and economic empowerment programs/projects to contribute to the long-term development of the Ahafo mining local community.

Climate-Proof Critical Minerals Policies and Security of Supply Strategies

Rising and unpredictable commodity prices have enhanced governments' and the private sector's perception of supply insecurity, particularly between 2008 and 2011, when commodity prices were extremely high. As a result, new key minerals policies and supply-security plans have been devised. These were largely based on analyses that attempted to identify minerals that are vital for long-term economic growth and hence of special (national) strategic importance. For example, both the European Union (EU) and the German government assess the criticality of minerals on a regular basis (see figure below on the global primary supply of the 20 critical raw minerals identified by the EU) and have developed resource policies and strategies to raise awareness about potential supply risks, foster innovation, promote cooperation, and set priorities for resource allocation. DERA (2015) and the European Commission (2014a) conducted research. Both the EU's Raw Materials Initiative and Germany's resource strategy advocate for an integrated foreign policy approach, with the EU even recognising "raw materials diplomacy" as a role. However, just a few parameters are often considered for determining the criticality of minerals. Regulations and policies, pricing, tariff and non-tariff trade barriers, development levels, and changing lifestyles are typically not taken into account (European Commission 2014b). Furthermore, these techniques frequently fail to consider whether a mining operation is located in areas prone to earthquakes, water stress, or environmentally sensitive areas (Vogt 2015). The same may be said about climate change and how it will affect different mining locations.

Legislative Framework

The Indian Constitution vests in the Central Government the power to regulate mines and mineral development, to the extent that the Parliament considers the same to be ‘expedient in the public interest’.[9] In exercise of these powers, the Mines and Minerals (Development and Regulation) Act,

1957 was the year.[10] This Act, together with the rules issued under it, serves as the foundation of India's mining legal system. It delegated authority to state governments to develop laws for awarding mining concessions for minor minerals [11], and it delegated equal authority to the federal government over other minerals.[12]

The following four parts of the MMDR Act should be emphasised. To begin, it defines four types of mineral concessions: reconnaissance permits, prospecting licences, mining leases, and composite licences, which are 'two-stage concessions' that allow mining operations to commence once exploratory efforts are finished.[13] Second, it gives the Central and State Governments the authority to revoke a prospecting licence or mining lease early if it is judged "expedient in the long run."

Third, the Act imposes various limitations on the award of mineral concessions, such as qualifying criteria for the prospective concession holder [15] and the maximum area [16] and duration [17] for which the concession may be given.[18] Fourth, it charges the Central Government with taking all necessary actions to guarantee resource protection and develop

Recent Amendments and Policy Objectives

It has been stated that, following the liberalisation of the Indian economy in the 1990s, the country's regulatory framework on mining has undergone a change mirrored in the developing world--that is, a re-orientation geared at attracting more private investment in the sector--a move that has been paralleled across the developing world.[22] The amendments made to Indian mining law from 2015 to 2021, in particular (as demonstrated in the following paragraphs), reflect a clear prioritisation of precisely this goal.[23] despite the existence of multiple, and complex, concerns afflicting the mining sector-[24] which include, but are not limited to, sustainability, local community rights, working conditions, and the proliferation of illegal mining.[25]

The Central Government introduced these adjustments in response to the industry's drop in output in the prior years.[26] An change to the MMDR Act in 2015 requires auctions for the awarding of mining concessions in order to improve transparency in the process.[27] An modification was adopted in 2016 to allow for the transfer of captive mining leases purchased other than through auction in order to facilitate 'legitimate commercial transactions' involving these leases.[28] The Act was changed in 2020 to provide for the ‘seamless transfer' of all 'legal rights, approvals, and clearances' in respect of a mining lease from a previous lessee to a new lessee for a 2-year term.[29]

Finally, this article highlights three significant changes made in 2021: first, it stated that no mine would be reserved for a specific end use; second, captive mines may sell up to 50% of their annual mineral produce in the market after meeting their own requirements; and third, the statutory clearances transferred to new lessees under the aforementioned 2020 amendment would be valid not for two years, but for the entire lease period.[32]

The goals of this set of amendments, as stated by the government in policy documents[33], have been to make doing business easier.[34] as well as to increase employment and investment in the sector, maintain continuity in mining operations following a change of lessee, and accelerate the exploration and auction of mineral resources.[35] A study of industry assessments published prior to 2015[36] demonstrates that these revisions address the issues raised, and gratitude for these amendments has been expressed by stakeholders from concerned business organisations.[37]

However, as this article argues, the prioritisation of economic interests causes these modifications to fall short of addressing other problems in the mining sector. One notable area in which they fall short in at least two respects is that of sustainability issues. First, they fail to address sustainability concerns stated in judicial decisions [38] and government reports [39] prior to their passage. Furthermore, their emphasis on frictionless clearing transfer and growth of investment and production has been considered to be directly contradictory to sustainability considerations.[40] For example, it has been argued that while automatic transfer of clearances to new lessees following lease expiration promotes continuity in mining activities, it may be damaging to the environment if done incorrectly. without examining the environmental impacts after one cycle of mining.[41]

This divergence of interests governmental interest in attracting private investment on the one hand and environmental concerns on the other- is not unusual to India.[42] Invoking two concepts prominent in scholarship on mining laws, this article shall offer a solution to this dilemma, later using the conceptual basis so evolved to argue for certain sustainability-enabling provisions to be inserted into the Indian law.

Mineral Tenure Security as a Policy Objective

It has been empirically demonstrated that security of mineral tenure is one of the most important investor considerations in the mining industry, owing to the numerous risks arising from, for example, the uncertainties of discovery involved in reconnaissance and prospecting operations, and volatility in the mineral market even after mining is completed. [43] As a result, ensuring such security has been a main priority in some developing nations' 'wave of reform' in mining regulations, including India, which seeks to attract private investment in the sector. [44] Historically, security of tenure has been associated with a 'right to mine,' that is, a 'reasonable legal entitlement' to the right to extract minerals following the successful conclusion of the exploration phase. [45]

However, in recent years, the concept's interpretation has begun to extend in light of i ncreasing uncertainties in the business (for example, those introduced by environmental regul ation).[46],modern idea ofsecurity of tenure' is concerned with the stability of rights not just th roughout the transition between discovery and mining, but throughout the 'entire productive li fe of a mine'.[47]

The Indian government's priority in ensuring mineral tenure security is clear in its National Mineral Policy 2019, which supports the idea of a right of first refusal to holders of reconnaissance permits during the auction of prospecting licences, and to holders of prospecting licences during the auction of mining leases, in order to promote a "seamless transition from reconnaissance permit to prospecting licence to mining leases."[48] Furthermore, as it stands, the MMDR Act grants a captive mining lease holder a right of first refusal at the time of the mining lease's expiration auction.[49] It also, as previously stated, allows for the 'seamless transfer' of up to 23 clearances from the previous lessee to the new lessee.[50] both of them These measures increase the extent to which the legislation provides stability and continuity in the operations of the sector's investors.[51] Furthermore, the Act expressly establishes a restricted range of grounds for terminating a mining concession, which are linked to 'public interest' and efficiency.[52]

Water Pollution Rules and Regulation

The Water (Prevention and Control of Pollution) Act was enacted in 1974 to provide for the prevention and control of water pollution, as well as the maintenance or restoration of the country's water's wholesomeness. In 1988, the Act was revised. The Water (Prevention and Control of Pollution) Act was passed in 1977 to allow for the recovery and collection of a cess on water utilised by people engaged in certain types of industrial operations. This cess is collected to supplement the resources of the Central Board and State Boards established under the Water (Prevention and Control of Pollution) Act of 1974 for the prevention and control of water pollution. The Act was most last revised in 2003.

National Mineral Policy 2019

The National Mineral Policy 2019 includes provisions that will benefit the mining sector, such as a. granting RP/PL holders the right of first refusal, b. encouraging the private sector to engage in exploration, and c. transferring mining leases and creating dedicated mineral corridors to boost private sector mining areas. d. The 2019 Policy recommends granting mining activity industrial status in order to increase mining funding for the private sector. e. It also states that a long-term mineral import-export policy will aid the private sector in better planning

and stability. f. The Policy also emphasises making steps to align taxes, levies, and royalties with global benchmarks in order to assist the private sector.

The Environment Protection Act, 1986

Under Article 253 of the Constitution, the Environment Protection Act, 1986 (the "Environment Act") provides for the protection and enhancement of the environment and subjects related to it. The statute was created in June 1972 at the United Nations Conference on the Human Environment in Stockholm. In which India participated, suitable efforts were taken to safeguard and develop the environment. The power of the central government to take steps, to protect and develop the environment, to appoint personnel and their authorities and functions, to direct, to make regulations to regulate environmental pollution. The Environment Protection Act creates a framework for investigating, planning, and executing long-term environmental safety regulations, as well as establishing a mechanism for rapid and adequate response to environmental threats. It is an example of The Water Act of 1974 and the Air Act of 1974 were aimed to create a framework for the coordination of central and state agencies. The term "environment" is defined broadly under section 2(a) of the Environment Act. It encompasses water, air, and land, as well as the interactions between water, air, and land and humans, other living animals, plants, microbes, and property. The Environment Act empowers the Central Government to take measures necessary to protect and improve the quality of the environment by establishing standards for emissions and discharges of pollution into the atmosphere by any person carrying on an industry or activity; regulating the location of industries; hazardous waste management; and public protection. health and wellbeing. The Central Government may issue notifications under the Environment Act for the protection of ecologically sensitive areas or guidelines for matters under the Environment Act from time to time.

Mitigation Measure for Control the Impact of Mining on Environment

Water consumption in mining regions is quite dangerous. Mining activities will invariably have an effect on the aquatic environment, whether via direct or indirect interaction with surface or groundwater. As a result, enterprises must spend in ensuring that water is not contaminated, or in treating or containing tainted water inside proper reservoirs, pipelines, canals, or other storage facilities. Mining businesses must support the adoption of environmentally friendly practises and technology. The following is the industry practise that must be followed:

- Scientific resource conservation and management with little waste, including the discovery of alternatives for minerals that are already widely utilised.
- Proper recycling of scrap metal.
- Use of ecologically friendly technology.
- Energy conservation.
- The mining activities adversely impact the residents, compromising their health, endangering their homes, and jeopardising their means of subsistence (particularly farming). The government at all levels should examine the operator's and others' activities in this region, review/re-evaluate their EIA and assess their operation on a frequent and regular basis, and suitable compensation should be delivered correctly.

- It is suggested that a full Environmental Impact Assessment be completed before obtaining a Quarrying Licence from the government. The government should establish a task force to examine operators who do not follow the Code of Practise for Quarrying Activities, and violators should be penalised.
- The population, government, and operator firm of a proposed quarry site should all agree on a method. Settlers should be protected. moved and reimbursed properly. Locals' interests should be regarded objectively throughout licence granting and government monitoring activities. Geologists, engineers, conservationists, and surveyors should be on the government task force team.
- Environmental management technologies a. Using waste as a raw resource; and • Reducing waste production by process re-engineering. (Industrial Effluent Recycling)
- Reducing the need for land by properly planning mining and associated activities.
- As soon as practicable, systematic removal, storage, and reuse of top soil on reclaimed ground. m. The use of dust extractors in conjunction with drilling, crushers and screening facilities.
- Keeping my fire under control. o. Design the mine plan to provide the least amount of disruption to surface water bodies and drainage patterns.
- Habitation sites will be equipped with amenities such as roads, connecting roads, street lights, and wells.
- tube wells, hand pumps, schools, community halls, health facilities, veterinary clinics, a retail complex, a panchayat Bhawan, a children's park/playground, and a tree plantation are all examples of public works projects.
- Restore or even improve the social and economic well-being of the displaced people by recognising resettlement and rehabilitation as an inherent part of mining and allocating adequate labour and financial resources.
- Choose equipment that produces the least amount of noise. Surface miners' coal mining significantly reduces noise and ground vibration.
- Proper blasting design and use of controlled blasting to reduce ground vibrations.

Section 23C of Mines and Minerals (Development and Regulation) Act (MMDR Act) 1957

It permits state governments to create measures to prohibit illicit mining, transportation, and storage of minerals, as well as other related objectives. As a result, state governments have legislative and regulatory authority over unlawful mining.

Furthermore, the MMDR Act includes the following provisions to combat unlawful mining: (it) The MMDR Act was amended in 2015 to make the penalties for illicit mining more severe. Penalties for violating Sections 4(1) and 4(1A) of the Act have been increased from Rs. 25 thousand per hectare to Rs. 5 lakh per hectare, and the prison sentence has been extended from 2 years to 5 years. Furthermore, Section 30B of the Act enables for the establishment of Special Courts by State Governments. The rapid trial of illegal mining/transportation/storage charges, and Section 30C of the Act states that such Special Courts are presumed to be Courts of Session. (ii) Rule 45 of the Mineral Conservation and Development Rules, (MCDR) 2017 requires all miners, traders, stockists, exporters, and end-users of minerals to register with the Indian Bureau of Mines and submit online returns to the State Government(s) and the Indian Bureau of Mines on the production, trade, and utilisation of minerals. (iii) Through the Indian Bureau of Mines, the Ministry of Mines has established the Mining Surveillance System (MSS) to employ space technology to notify any unlawful mining activities to the State Government,

which would take appropriate action. The Mining Surveillance System (MSS) is a satellite-based surveillance system that attempts to monitor mining operations. to discover illicit mining activities beyond the lease area by use of satellite pictures. (iv) In accordance with Section 23(C) of the Act, 21 State Governments have drafted guidelines to combat unlawful mining. In addition, 22 state governments have established Task Forces to oversee illicit mining and examine the actions performed by member agencies to combat illegal mining at the state and district levels.

Laws were Implemented to Prevent the Environment from Damage

Foreign investors have always made efforts in developing nations with the goal of increasing the economy of that country, either by investing in extractive industries or in the organisation. The expansion of the economy is crucial, but the protection of the environment should not be sacrificed. The mining industry in India accounts for 4% of the country's GDP. The mining industry in India is already fraught with environmental and health risks. One such example is the Kudremukh Iron Ore Limited mining firm, which twisted environmental harm by damaging the hills, generating pollution, and affecting the Kudremukh national park, causing damage to the ecosystem. Plant and animal life. Mining activities have negative environmental consequences; hence regulations were enacted to protect the environment. As a result, environmental conservation should be a top priority. The Indian judiciary has clearly played an important role in environmental protection by applying the principles of sustainable development when deciding cases, but citizens of India have also responded and contended to the environmental crisis caused by indiscriminate quarrying, mining, and stone crushing near polluted areas and national highways, and felling of trees and cause pollution, resulting in deforestation and other environment.

Vedanta is one such example that has had significant environmental consequences.

Orissa Mining Corporation v. Ministry of Environment & Forest & Others Vedanta Aluminium Limited (VAL) and the state of Orissa had a dispute in 2003. Vedanta Aluminium Limited (VAL) is one of Vedanta Resources' subsidiaries. Vedanta Resources is a registered mining firm having its headquarters in the United Kingdom. It is one of the world's most diverse and widely recognised natural resource enterprises. The company's activities are spread around the globe, with offices in South America, Ireland, the United Kingdom, and the United States. The organisation is known for its astounding ideas that have improved development in impoverished nations all around the world. The group had taken on several greenfield and brownfield expansion projects throughout the world and had therefore been successful in completing capital projects. expansions at a lower cost. The company's activities in India have already been expanded. Sterlite India Private Limited in Mumbai and Vedanta Aluminium Limited in Orissa are its two functioning subsidiaries in India.

The cause of action arose in 2003, when Sterile India Private Limited proposed building an aluminium mine in Orissa. Based on that advice, Vedanta Aluminium Limited (VAL) and the Orissa Mining Operation (OMC) inked an agreement in 2004. The deal called for the establishment of an aluminium mine producing bauxite in Orissa's Niyamgiri Hills. The mine and refinery were built for mining development, and the planned mining lease included a plan for collecting bauxite from the ground. Niyamgiri Mountains. People in the vicinity were uninformed of the mining boom and bauxite refinery's creation in Orissa's Niyamgiri Hills due to a lack of informational materials. Resistance to the Vedanta operation first emerged in 2002,

when the corporation began purchasing property for mining activities. Resistance developed among tribal tribes as the firm began building activities on the territories of indigenous peoples and tribal communities living in the Niyamgiri highlands, threatening their sustainability and livelihood**.**

Bellary Mining Scam

The report by Lokayukta Santosh Hegde of Karnataka is a shady look into the emergence of India's mining poster boy, Bellary. The Reddy brothers, the script's heroes, utilised force and money to get their way through government offices. It was all gold at first. However, Hegde's investigation revealed the filthy foundation of Bellary's mining activities. Heads have tumbled, and the Karnataka political system has been rattled. B S Yeddyurappa, a BJP politician, was forced to resign as chief minister. The Supreme Court has intervened to prohibit mining based on a recommendation by the Central Empowered Committee (CEC).

For a long time, the all-powerful iron ore mining mafia of Karnataka has thrown red dust into the eyes of democratic India with impunity. Persuaded of The Reddy brothers, together with their instructors and allies, have decimated the state's rich mines in their invincibility. Between April 2006 and July 2010, the state suffered a loss of Rs 16,085 crore as a result of unlawful mining.

On July 27, Karnataka Lokayukta Justice N Santosh Hegde handed his 25,228-page final report to governor H R Bharadwaj, exposing the massive looting of public money by people in authority. The study provides a thorough narrative of corruption, collusion, and illegalities performed from the bottom up, supported by facts.

The findings of the anti-corruption agency pushed chief minister B S Yeddyurappa to quit, giving the governing Bharatiya Janata Party significant humiliation. His successor, D V Sadananda Gowda, fired tourism minister Gali Janardhan Reddy and revenue minister Gali Karunakara Reddy, both of whom were named in the report. In addition to the Reddy brothers, Yeddyurappa's cabinet colleagues were indicted: health minister B Sriramulu and food and civil supplies minister V Somanna.

The dossier includes the names of almost 700 mining authorities and 400 firms involved in mining, iron ore trafficking, and steel manufacturing. JSW Steel Ltd, owned by the Jindal Group, Adani Enterprises Ltd, Sesa Goa Ltd, and MSPL Ltd, controlled by the Baltoda Group, are among those named as defendants. India's largest public sector iron ore producer is the National Minerals Development Corporation (NMDC). H D Kumaraswami is a former Karnataka chief minister and Janata Dal (S) politician. The article also mentions Aarti A Lad, the owner of mining giant VSL Enterprises and the wife of business magnate-turned-Congress MP Anil Lad. Karnataka accounts for around one-fourth of the country's yearly iron output of 245 million tonnes. Sixty percent of this originates from the state's Bellary district, which includes 124 mines, the majority of which are located in forest areas. The frenzy to extract iron ore started in 1999. And with it began the saga of unholy collusion between the political class and the mining and steel industries. Joining hands, they gifted new leases and renewed the defunct ones. Large-scale mining led to massive environmental destruction. The rush to obtain iron ore began in 1999. The narrative of unholy cooperation between the political elite and the mining and steel companies began with it. They worked together to give out new leases and renew expired ones. Large-scale mining wreaked havoc on the ecology. The Karnataka government ordered the Lokayukta to investigate claims of unlawful mining in March 2007. Beginning in 2000, it was tasked with "fixing responsibility and initiating action against all

public servants, including ministers, whether in office or otherwise." "It was a difficult mission," Hegde recalls. The inquiry was led by U V Singh, the chief conservator of forests. "But we refused to succumb," Singh recalls. The paper details the irregularities committed in mining lease awarding, mining, stacking, transporting, selling, and exporting iron ore. There were also several incidents of illicit activity such as mining without a lease or after the lease time had expired, encroaching on forests and even other people's mines, shipping ore without permissions or with false permits, overloading vehicles, under-invoicing, and benami transactions.

Many laws were broken, including the Mines and Minerals Development and Regulation Act (1957), the Forest Conservation Act (1980), the Environmental Protection Act (1984), the Foreign Exchange Management Act (2006), and the Panchayati Raj Act. The police, mining, forest, revenue, weights and measures, commercial taxes, labour, and the Karnataka State Pollution Control Board (KSPCB) were all complicit.

According to the Lokayukta investigation, Karnataka's iron ore was being shipped via Goa for local use. The high-quality ore from the state was combined with the poorer Goa ore and carried from Bellary in railway waggons. However, there was no procedure in place to identify the illegal consignments. The Karnataka Forest Act of 1969 states that no forest produce may be transferred by rail or the sea without a proper licence.

The investigation disproves the Reddy brothers' assertion that they never mined iron ore in Bellary. It devotes an entire chapter to detailing the illicit activities of the Associated Mining Company, in which Janardhan and his family have an interest. Through a "raising contract," the politician forced practically all miners to pay him a "tax." A raising contract is an unlawful arrangement in which a mine owner allows a third party to accomplish his corporate and receive a cut of the earnings or "lift" a certain amount of iron ore from his mines. Those who refused were denied ore transport licences. "We were also asked to pay them, but we refused," says Raghavendra Rao, MSPL's assistant general manager.

The role of public sector enterprises is also explicitly stated in the study. NMDC was exporting ore at considerably cheaper rates at a time when private operators were generating big profits from legitimate and illicit mining and exports. This was possibly done to assist private participants in making large sums of money. The National Agricultural Cooperative Marketing Federation of India Ltd (NAFED), which normally engages in the acquisition of oilseeds, pulses, and cotton, also dealt in iron ore under suspicious circumstances. Mysore Minerals Ltd, a Karnataka government corporation with 40 mining leases, felt the same way. Hegde has published a list of the authorities implicated, as well as their bribery rates at the Belekeri Port. According to him, the money "progressively increased" from Rs 22 lakh in 2004-05 to Rs 48 lakh in 2005-06 to Rs 66 lakh in 2006-07. in 2007-08, and Rs 1.28 crore in 2008-09. The KSPCB was heavily indicted in the Lokayukta report for supporting and abetting unlawful mining. It mentions occasions where the board skipped obligatory public hearings or held them without fetching individuals in order to give additional mining licences. The board turned a blind eye during the peak mining era, when air and water bodies were becoming progressively contaminated. The mission is complete for Hegde. His tenure expired five days after he turned in the report. However, he is unsure whether the state government would take anything. "My first report was completely ignored," he complains. Hegde produced a 274-page analysis in December 2008, warning that even at a reasonable pace of growth, the deposits would not endure more than 20 to 30 years12 mines were fined for infringement mining plans. In April 2010, similar orders were issued against 18 firms. However, consignments continued uninterrupted.

The Supreme Court's Central Empowered Committee is now evaluating comments from large corporations including as JSW Steels, Adani Enterprises, Sesa Goa, and NMDC that have rejected Lokayukta's claims.

But the miners remain unconvinced. Fomento Mines Company was captured moving 3,724 tonnes of ore worth Rs 75 lakh by rail a day after the Supreme Court halted mining activity in Bellary for three months. Is this a foreshadowing of what's to come?

Coal Scam

The CBI alleges that Madhu Koda and others plotted to benefit a Kolkata-based business in the award of coal blocks in Jharkhand. New Delhi, India. Madhu Koda, the former chief minister of Jharkhand, was found guilty of unlawfully assuring the allocation of a coal block in Jharkhand to a Kolkata-based business. The distribution of the Rajhara North coal block is one of several examples of alleged wasteful coal block allocation by the then-UPA administration at the Centre from 2004 to 2009. The affair, dubbed the coal scam, sparked a major political uproar. The special court also convicted three additional suspects guilty, including former coal ministry secretary HC Gupta, former Jharkhand chief secretary AK Basu, and the private business involved, Vini Iron. as well as Steel Udyog Ltd. The next day, the court has decided on the severity of the penalty. Four people were found not guilty. According to the Central Bureau of Investigation, Madhu Koda, AK Basu, and two others colluded to benefit the enterprise, which had been denied allocation by the Jharkhand government and the Union Ministry of Steel despite seeking for it. However, HC Gupta, the screening committee's chairman, kept this information from then-Prime Minister Manmohan Singh, who was in charge of the coal ministry. The coal scandal made news in 2012 after a national auditor's investigation indicated that the country had lost up to 1.86 lakh crore owing to poor coal block allocation. According to the auditor,

Impact of the Setting up of the Aluminium Mining Plant

The establishment of the mine and associated refinery would contribute to regional growth, however the location chosen for carrying out the planned plan would have negative consequences on the ecology and the sustainable living of tribal populations. The mine's actions, such as purchasing property, building a road, and other development plans in Orissa's Niyamgiri hills, posed a danger to the tribal people, particularly the Dongria Kondh. The aluminium refinery, which was also part of the original plan, would pollute the air and water in the area, creating respiratory difficulties in the inhabitants. The Niyamgiri hills were not only home to tribal populations, but also to tigers, leopards, elephants, sloths, and other wildlife., and others, some of which are already on the endangered species list. The Niyamgiri hills will damage many plant species and result in tree fall, posing major environmental hazards. Initiatives taken by organisations to oppose mining operations The establishment of an aluminium mine in the Niyamgiri hills aroused issues about constitutional rights, human rights, environmental rights, and the health of the people who live there. To raise public awareness, a few activities were launched by various organisations, and public interest lawsuits were brought. Among them were: Niyamgiri Suraksha Samiti, or Niyamgiri Protection Society, was founded in 2004 with the goal of protecting the indigenous tribes' interests. The civilization grew more organised, and steadfast in their resistance to the mine's establishment.

The leaders launched the Adivasi tribal movement to oppose mining activities in Orissa. Orissa has a population of roughly 41.9 million people, with tribal tribes accounting for 25% of the population and mostly involved in forest produce collecting, hunting, and gathering. As

soon as the agreement between Vedanta Aluminium Limited and the state government of Orissa for the opening of the aluminium mine was signed, many unaffiliated Orissa-based activists-initiated action against the mining activities. The Odisha-based activists included a variety of graduates, attorneys, and environmentalists who spoke out against the mining activities, citing the government's irresponsible industrialization practises as a major threat to the environment.

The Delhi Solidarity organisation was founded in 2006. with the goal of addressing environmental challenges and providing justice for them, and with the goal of providing solidarity to Delhi's social movements. Concerning Vedanta, the organisation gave information to activists and also helped the Adivasis in their efforts to rescue the Niyamgiri mountains in 2007.

The animals Society of Odisha was founded in 1994 with the goal of conserving forests and animals in the state of Orissa, as well as controlling pollution-related activities. The society took the initiative, and a complaint was filed with the Central Empowered Committee (CEC) against Vedanta aluminium refinery and its projected mining operation, alleging that Vedanta limited breached forest and environmental regulations.

Mines, Minerals, and Resources People is a coalition of citizens and other social groupings who take action against mining activities in states. The alliance was critical in developing contacts between indigenous people and legal advocates so that concerns could be addressed to the legal fraternity.

Conflict History

This is a well-known example in India's mineral-rich state of Odisha, involving some of the world's oldest surviving indigenous peoples. The Dongria tribe of Eastern India has been under strong pressure from the state government as well as Vedanta, a London-based mining firm, to allow bauxite mining to go place.

The Dongria Tribe and the Niyamgiri Hills

The critically endangered Dongria tribe has lived in the highlands that hold an estimated $2 billion in bauxite resources for millennia (Bennett, 2014). The Dongria are a tribe of around 7,000 people who have lived peacefully in tiny settlements across the hills, scouring the hill forests for food, farming crops, and worshipping Niyam Raja, their Mountain God. Their cultural and spiritual identity is inextricably linked to the Niyamgiri Hills, which the Dongria believe are responsible for supporting mankind by guaranteeing a system of flowing streams, forests, and wildlife. The Indian biodiversity Act recognises the Niyamgiri Hills for their natural beauty and diverse biodiversity (George, 2014).

Vedanta’s Proposed Project

Vedanta's projected project intended to harvest 72 million tonnes of bauxite from these hills over a two-decade period (Chaturvedi, 2014). This would have meant blowing off the top of Niyam Raja and disturbing the social, cultural, and ecological fabric of the tribe's long-preserved way of life. Vedanta committed several million dollars in putting up an alumina refinery downstream in the Niyamgiri foothills that would be fed bauxite from the Niyamgiri Hills to create high quality aluminium even before it acquired mining permits. Multiple disputes have arisen during the construction of this refinery, including unlawful encroachments

on forest property, undervalued land acquisitions that resulted in the forced relocation of over a hundred indigenous families (Wasley, 2009), and uncontrolled mining. Vedanta's proposed project was to mine approximately 72 million tonnes of bauxite from these hills over more than two decades (Chaturvedi, 2014). This would have included blowing off the top of Niyam Raja, and disrupting the social, cultural and ecological fabric of the life the tribe has successfully preserved for a long time. Much before Vedanta received permission to mine, it invested several million dollars in setting up an alumina refinery downstream in the foothills of Niyamgiri that would be fed bauxite from the Niyamgiri Hills to produce high quality aluminium. The process of building this refinery has been fraught with multiple conflicts, including illegal encroachments on forest land, under-valued land acquisitions leading to forced resettlement of over a hundred tribal families (Wasley, 2009), unregulated pollution of land and water, and loss of traditional livelihood opportunities (Odisha Sun Times, 2014).

The Dongria Tribe's Response

The Dongria tribe has drawn specific lessons from the experiences of adjacent tribal tribes affected by the establishment of Vedanta's refinery in order to express clear opposition to the company's aspirations to expand operations and mine their hills and forests. For more than a decade, the Dongrias have fought Vedanta's mining licence locally and nationally, including a series of public rallies, finally prompting the Supreme Court of India to intervene. The court ordered that 12 of the most effected Dongria Kondh villages vote on the fate of Vedanta's mining plan (Chaturvedi, 2014).

Violation of Schedule V

Schedule V of the Indian Constitution was enacted to ensure fairness to Indian citizens in terms of social, economic, and political situations. The schedule particularly addresses the administration and management of scheduled regions as well as the territories of scheduled tribes, and it is intended to preserve the Adivasis' and tribal groups' lands. It has been asserted that private enterprises cannot confiscate property belonging to scheduled castes without the previous approval of the scheduled tribes, since this would constitute a violation of the laws of the nation. The similar thing happened in the Vedanta issue, when the land of the Niyamgiri highlands was grabbed without the agreement of the scheduled tribes, namely the Dongria Kondh.

Violation of Article 21

Article 21 of the Indian Constitution declares that everyone shall be granted life and personal liberty, and that there should be no discrimination based on caste or scheduled tribe. The Article has been broadly interpreted, and it encompasses the right to a livelihood, the right to shelter, the right to a clean environment, and the right to water. The development of roads and other activities infringed the indigenous groups' basic fundamental rights by depriving them of their livelihood and shelter.

Violation of the Forest Rights Act, 2006

The Scheduled Tribes and Other Traditional Forest Dwellers Rights Act of 2006 was enacted to recognise the rights of tribal communities and forest dwellers to land and other necessities of life on which they rely primarily for livelihood, habitat, and other socio-cultural needs. The Vedanta aluminium mining operation was violating rights because the company

was illegally using tribal communities' land, and it was also claimed that the land was acquired through force and corruption, infringing on the rights of the scheduled tribes under the Act.

Violation of the Wildlife Protection Act, 1972

The Wildlife Protection Act, 1972, was established by Parliament under Article 252 of the Constitution, and one of its goals was to guarantee protection to endangered species regardless of their location or region. The Niyamgiri hills were not only a cultural site for the scheduled tribes, but also a home to various animals that are red-listed under the International Union for Conservation of Nature, such as tigers, leopards, elephants, sloths, and sambar deer, among others. The Niyamgiri hills are also part of the elephant migration corridor. As a result, the mines' construction would evict endangered species, in violation of the Act's requirements.

Violation of the Forest Conservation Act, 1980

The Forest Conservation Act of 1980 was enacted to prevent deforestation, which had produced ecological imbalance and consequently environmental damage. Section 2 of the Act stated that forest land cannot be used for non-forest purposes if it has been declared a reserved forest, or if the ministry and the central government have given permission to use that land for non-forest purposes, or if any land should not be used without the government's approval. Vedanta violated the Act by establishing an aluminium mine without seeking authorization from government officials or tribal tribes, despite the fact that the lands were theirs and they relied on them for their livelihood.

The Supreme Court verdict

Role of the Central Empowered Committee

Section 3 of the Forest Conservation Act empowers the central government to form committees for forest conservation when and where necessary. Applications were filed before the Central Empowered Committee by social organisations, non-governmental organisations, and other environmentalists claiming that the mine's location was illegal. In 2005, the Supreme Court asked the committee to investigate the issues and get findings on the legality of the Ministry of Environment and Forests' environmental clearance.

The committee examined and met with the Ministry of Environment and Forest, and Vedanta agreed that the mine's construction required the use of forest land. The committee then requested that the ministry issue "stop orders" on the establishment of mining activities and, as a result, presented papers to the Supreme Court indicating that Vedanta's actions breached the requirements of the Forest Conservation Act, 1980. As a result, the Supreme Court issued orders under Section 4 of the Forest Conservation Act terminating the mining project and proposing the formation of a Special Purpose Vehicle (SPV) to administer development through consultation and develop rehabilitation packages for the Niyamgiri mine project.

Company's appeal to the Orders

The Vedanta Aluminium Limited objected to the Central empowered committee's conclusions and investigations and filed a statement of appeal in the Supreme Court of India. As a result of the statement, the Supreme Court issued an order stating that the forest can be utilised for the mining project for sustainable development, but environmental protection should not be jeopardised.

National and International NGOs and Organizations

National and international non-governmental organisations (NGOs) submitted applications to have the forest cleared since it breached India's Forest Conservation Act of 1980 and the standards of the Organisation for Economic Cooperation and Development. Vedanta, on the other hand, contested the claims made by the social activist organisations, and the matter was sent to the Supreme Court for additional proceedings.

The Intrusive function of the Saxena Committee

The Saxena Committee was constituted and appointed by the Ministry of Environment and Forests on the directives of the Supreme Court to investigate the subject after the Central Empowered Committee delivered its findings. The Saxena Committee was made up of environmentalists and specialists. It was founded because the state government was not providing accurate information about the disagreement, and the reports were "tainted in favour of the industry." The committee made the following observations: When they were denied permission to exploit the property for commercial purposes, the business resorted unlawful tactics to obtain it, endangering the lives of native populations. The planned mining lease, where the activities would take place, was located on the Niyamgiri hills., which was surrounded by deep woods and served as a home for many plant and animal species. The ecological impacts of mining activities at the projected intensity would cover more than 7 square kilometres, disrupting animals, particularly elephants, because it was a migration route for elephants. Based on the recommendations, the Ministry of Environment and Forests concluded in 2010 that Vedanta should not be permitted to mine in the Niyamgiri highlands because it breached the Forests Rights Act of 2006 and the Forests Conservation Act of 1940. The Supreme Court issued a decision, and the gramme sabhas were granted the ability to determine whether or not to renew the proposed mining lease.

Role of the Gram Sabha

The Supreme Court constituted the Gramme Sabha in 2013 to examine the Vedanta issue and make reports to the court. The gram sabhas are the lowest level decision-making bodies that have been given the authority to fulfil village-level responsibilities under Article 243 A of the Constitution. The gram sabha is the cornerstone of the Panchayati raj system, and it is made up of those who have registered to vote in the village's panchayat elections. The gramme sabha is a decentralised decision-making body that has accorded adult community members a broad franchise. The nomination of gram sabhas by the state government of Orissa was fraught with controversy, but the process was followed. presents a lot of benefits to the Vedanta debate. Meetings were held on behalf of the Supreme Court in thirteen villages in Orissa that will be affected by the planned mine to guarantee fairness and honesty. The benefits of the gram sabha are as follows:

- The authorities extended the right to vote to all adult members in the village;
- The meetings were held in villages where the communities were affected by the proposed mining lease; and
- They were empowered by Indian laws and acted appropriately.
- They are deeply embedded in the local institutions. The case provided them the authority and power to resolve the issue for the benefit of the tribal groups.
- They conducted all of their investigations with the utmost transparency and scrutiny.
- They made choices in a free, fair, and unbiased manner.

Finally, the Ministry of Environment and Forest ruled that Vedanta Aluminium could not be permitted to pursue mining activities because it violated forest and environmental rules.

The Supreme Court ruled in favour of the Niyamgiri Hills and dismissed applications for the approval of the planned mining lease operation in the Niyamgiri Hills.

Government mining policy requirements that must be implemented According to authorities from the Ministry of Coal and Mines, the situation with mining leases has improved significantly, but foreign investment has been delayed. The national government has undertaken a number of steps to increase FDI inflows. in the mining industry, so that environmental harm is forbidden, have accelerated the environmental clearance of foreign and domestic investment projects, and have efficiently implemented environmental regulations. Other actions that the government must take to oversee mining operations include: Mining operations in ecologically sensitive and wealthy places, as well as environmentally vulnerable areas, should not be permitted by the national and state governments. It should prohibit mining in particular areas and thoroughly compile reports for submission to authorities for action. Environmental policies and laws should be effectively implemented, and corporations involved in the proposed projects should face penalties. Mining environmental indicators should be created so that state governments may effectively control the industry. The ecology in mining areas. Mining businesses should be required to get environmental certification.

The Vedanta case is a landmark case that proved that environmental protection should be considered of prime and supreme importance. Bhakta Charan Das, a member of the Indian Parliament stated that the Vedanta case is a prime precedent of a 'Voiceless people' being given a voice. Though the case has been cited as a success story it can also be considered as a cautionary tale. The tribal communities of the region face harassment and threat from the government. Thus, the judiciary in India has played a vital role in interpreting the laws in the case of Vedanta, but the case achieved success when the local citizens and the non-governmental organizations and authorities voiced their opinion against the setting up of the opinion. It can be concluded by saying that the principle of sustainable development plays a very important role in deciding the cases and the disputes related to the environment have raised concerns of the judiciary, which have led to the creation of an 'environmental jurisprudence'. It is true that in developing countries like India there have to be developments made but that development should have to be in the closest possible harmony with the environment as otherwise there would be development but no environment which would be resulting in total devastation. So, there must be a proper balance between the development and environment so that both can coexist but without affecting each other.

Conclusion

The nature of mining industry suggests that disputes are unavoidable, especially when large-scale international corporations operate in local disadvantaged areas. Though discussions of environmental conflicts in developing countries such as Ghana have been met with great caution and scepticism, it is also possible that these issues provide a starting point for looking more broadly at how positive connections between mining, the environment, and community development could be established. Mining has severely harmed the environment, radically altered local populations' social and cultural paradigms, and led to the current impoverished situation of mining areas such as the Tribal region. It is also undeniably true that these mining enterprises have helped to advance the development of their catchment areas. Many towns and cities have Schools, clinics, water facilities, and roads that did not exist prior to mining operations. Nonetheless, the study found that mining-induced conflict is mostly caused by the company-community contact. This is especially true for large-scale mining operations' impact on local people's living space, livelihood sources, and social relationships as a result of mining.

The response, which might be violent, legitimate, or even justified criminality, demonstrates that the disagreements are not merely caused by environmental damage and are played out inside a social interaction. As a result, concerns of compensation, displacement, relocation, and health implications cannot be handled merely with a strategy framework.

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