INTRODUCTION

The mining “boom” had negative socio-environmental impacts

With the mining export “boom” of the last decade, the negative socio-environmental impacts of mining have intensified and have been strongly felt across many regions of the world. This was brought on by the expansion of mining activities, driven by high demand, a long cycle of high commodity prices and a conducive environment for mineral financing.

There is a growing recognition that mineral extraction comes at a high social and environmental cost, and that the much-touted economic benefits of mining—in terms of employment, revenues and investment—are proving insufficient to compensate for its negative impacts. These effects have been documented by the writers of the current brief in extraction areas in Bolivia, Chile and Greece, where their research took place.

The state plays a central role in mining regulation

The state plays a key role in mineral extraction. Rules on resource access and property rights, for instance, remain strictly under the preview of the state, as well as laws governing foreign direct investments, royalties and taxation. The state, moreover, serves as the main arbiter of relations between mining firms, workers and local communities.

In the past decade, this role has been undermined by regulatory oversight, corporate or political pressure on state agencies, and lack of capacity to mitigate the social-environmental disruptions that result from mining. These challenges are apparent in the cases considered. For instance, gaps in environmental impact assessment reports persist, and calls for meaningful and broad-based consultation processes with local communities on mining projects remain largely ignored.

The legality, and legitimacy, of contracts accorded by the state to mining companies or investors have also been contested as competing claims from local communities emerged and environmental damages became apparent.
Focus and significance of the research

In this policy brief, we aim to contribute to policy debates and generate greater awareness around the developmental implications of mining. We draw on research on the socio-environmental impacts and management of mineral extraction in Bolivia, Chile and Greece.

Based on the research findings, we suggest that, in order to improve the developmental outcomes of mining, the actions of policy makers should aim to:

- Strengthen state/state agencies’ capacity to enforce environmental regulations.
- Improve the contribution of mining to social and economic development.
- Implement indigenous rights and extend them to all affected populations.
- Guarantee the respect of labour rights.

KEY OBSERVATIONS

Mining activities continue to be environment ally destructive

The adverse environmental effects of mining remain a key source of tension between states, communities and mining companies. The negative impacts observed include:

- Displacement of local communities and productive activities
- Deforestation
- Contamination of water sources and agricultural land
- Discharge of unprocessed mining waste

Adverse effects have been observed across projects operated by small and large mining firms alike. In Bolivia, for instance, small-scale and informal mining companies are often considered the most problematic actors, as they typically operate without environmental licensing, do not use tailings dams and water processing plants. Large operations, however—both by state-owned and private enterprises—can also produce high levels of contamination and large quantities of waste, despite being formally compliant with legal technical requirements. In the case of Halkidiki, Northern Greece, for instance, there is a constant production of highly toxic waste and emissions, due to increasing use of chemicals such as cyanide, arsenic and sulphur in the smelting of metallic concentrates.

As the Pascua Lama gold project (Chile) shows, moreover, the drive to maximise profits through economies of scale further increases the environmental risks attached to their activities.

Lack of state ability or willingness to ensure the mining industry’s compliance

The negative socio-environmental impacts of mining are related to the inability or unwillingness of states to guarantee compliance with regulations. We identified three main reasons for this:

- First, key aspects of mining laws and environmental policies remain weak and lack stringent legal provisions for the reduction, monitoring and reversal of mining-related impacts.
with socio-environmental regulations

- Second, state institutions tasked with ensuring compliance with socio-environmental regulations—particularly at local levels—lack economic resources, trained personnel and technical instruments to properly review mining operators’ environmental reports as well as to conduct inspections effectively.

- Third, states are unwilling to threaten companies’ interests, due to the direct and indirect financial dependence of national and local level public institutions on mining activities and investment in the sector. This is related to the strategic political and economic significance of the industry in mineral-rich countries like Bolivia and Chile, while in Greece it is linked to the urgency of attracting foreign investments to address the country’s public debt crisis.

The mining industry’s contribution to economic development does not compensate for its negative socio-environmental impacts

The development of mining as a strategic industry is often justified by states along developmental goals. The assumption that mining is good for development, however, is highly problematic.

- First, the contribution of the industry to state revenues is very small in relation to the total value of minerals produced and the total value of industry profits. In order to attract foreign investment, countries offer firms very favourable conditions (particularly low taxes and royalties) which, while guaranteeing an inflow of earnings in the short term, hardly compensate for the socio-environmental impacts of operations. In Bolivia, for instance, despite state plans to obtain greater shares of revenues, the average taxes and royalties paid by transnational firms are calculated to be around 8% of the value of minerals produced.

- Second, while traditionally a labour-intensive activity, technological innovations are increasingly reducing the number of jobs created by mining, especially in large-scale operations. In Greece, for instance, this is obvious since there is a gradual devaluation of labour (and labour cost) in the mining operations.

- Finally, the cyclical nature of mining makes its economic gains uneven and highly disruptive. The mining business tends to follow boom-and-bust cycles influenced by international commodity prices and capital markets over which the state has limited control. This makes its economic contributions uncertain in the long-term, and creates social and economic problems related to the sudden expansion and scaling-back of activities.

The rights of local communities are often ignored or violated

The development of mining operations is accompanied by the violation of rights of local communities. We have observed several instances of this, including the following, which are clearly visible in the case of Bolivia:

- First, the right of local populations to be consulted and to participate in decision-making processes regarding mining operations and related policies.

- Second, the right to participate in the benefits derived from extraction and to receive adequate compensation for socio-environmental disruptions.
These first two sets of rights are particularly important in the case of resource extraction activities in indigenous territories, as established by International Labour Organisation Convention 169.

- Third, the right to access information about mining projects and their impacts, such as Environmental Impact Assessments and other legal and technical documents. This is clearly visible in the case of Halkidiki, Greece, where local communities have been excluded from the decision-making process of the project.

- Finally, local communities are exposed to the threat of violence, both on the part of mineworkers, private security or state police forces. This, in all of the case studies considered, is accompanied by a tendency towards the legal and discursive criminalising of protest against economic activities considered of ‘strategic’ importance, such as mining.

Labour safety, demands for job security and higher wages have not been addressed

Labour is a critical component in mining operations but is also one of the most vulnerable. Miners are employed to work in some of the most inhospitable places: in extreme temperatures, high altitude or hundreds of meters underground.

Occupational safety remains a critical issue, but this is mainly left to company management. At the international level, the ILO Convention 176—Health and Safety in Mines Convention—which consists of measures to prevent injuries and fatalities in mining operations, has not been ratified by a majority of countries, including some of the most mineral dependent states such as Bolivia and Chile.

Miners are also amongst the first to feel the brunt of slumps in commodity prices, as mining companies regard lay-offs as one of the most immediate and effective measures to reduce operating costs. Lack of job security and low wages are the key drivers of labour unrest in the mining industry, and have been key flashpoints of conflicts around mineral extraction in general. In Bolivia, for instance, informal miners’ demands for secure employment resulted in several deadly clashes in the last decade.

Finally, in most of the mining areas there is a strong dependency on mining for livelihood as there are no (or limited) alternatives. There is therefore what is a called a “mono-cultivation of mining” as the development pattern for areas rich in extractive resources. This is particular the case of Halkidiki, Greece where the local social movement against gold operations was born out of the need to protect local livelihoods and landscapes from the hazards of gold mining by transcending particular economic interests and engaging in promoting development alternatives away from the dominant corporate / growth models.

RECOMMENDATIONS FOR POLICY-MAKERS

Strengthen

In order to improve the socio-environmental implication of mining, the role of the
state autonomy and capacity to enforce environmental regulations

...state is fundamental in setting up and enforcing stringent regulations. Among the necessary measures, we highlight three:

- Adopt stringent and comprehensive legislation for environmental protection. Mining laws should include stricter provisions on environmental rehabilitation and impact mitigation. These should also be reviewed and revamped as needed, such as in response to changing practices in the mining industry.

- Effective state regulation requires trained and informed personnel at both the state and local government levels and a regular monitoring system in place. This means investing in the technical, legal capabilities of government staff and ensuring that regulatory positions are occupied by qualified personnel. More broadly, it requires that such institutions be allowed to carry out their work free from political pressures and with support from higher level state bodies.

- Reduce financial dependency on mining activities in general and private investment in particular. There should be greater presence of both state and cooperative/communitarian productive actors in the mining sector. At the same time, these operations should be democratically controlled, with meaningful participation of representatives of affected communities, to assure that the interests of the latter are not marginalised.

Improve the contribution of mining to social and economic development.

Given the high social and environmental costs of mining, it is fundamental that the contribution of the industry to national economy is significant. Therefore:

- The level of taxes and royalties paid by private companies should be as high as possible. This level should be decided democratically in the host country without considerations of profitability of the firm, in order to avoid a ‘race to the bottom’ in order to compete for investments. Increasing the presence of state-owned companies also helps to reduce dependency on foreign investment.

- Mining operations should contribute to good-quality employment and be linked to other national and local economic activities. The state should promote policies for the processing, industrialisation and commercialisations of minerals and metals, prioritising the national market and links to its manufacturing sector.

- Mechanisms should be devised to guarantee that the mining industry is less affected by swings in mineral prices, so as to avoid the typical boom-and-bust dynamic of the sector. One such mechanism is the creation of ‘stability funds’ with extra taxes during high-price cycles which can be then used to subsidise the sector during low-price periods.

- More broadly, links to national manufacture sector should guarantee the valorisation of minerals in industrial production process, thereby reducing the dependency on export markets.

- Information on company finances, most of which are accessible to the public, can often be leveraged to exact better concessions to maximise the value derived from mining. The information can be used as a counter-
argument in the context of growing workers’ demands for better pay and increases in royalties demanded by host states—costs that mining companies have argued they cannot afford.

Local populations bear the brunt of social and environmental disruption caused by mining, and often receive very little benefit from it. In order to redress this injustice, states should take a number of urgent measures, including the following:

- In the case of indigenous peoples, internationally recognised rights should be upheld and fully implemented. These include the right to subject mining policies and projects to obtaining the ‘free, prior and informed consent’ of affected populations, as well as the latter’s right to receive benefits from resource extraction as well as adequate compensation for social and environmental impacts.

- These rights should be extended to all affected communities, even if they do not identify as indigenous or classified ‘indigenous’ as in countries with no legal recognition of their status.

- States and mining corporations should demonstrate and practice commitment to principles of transparency and accountability. There is need to promote transparency and access to information in terms of environmental impacts, mining contracts and royalties between states and mining companies, taxation and revenue distribution and use.

- The right of local populations as well as organisations and activists to demand changes to mining projects or policies through protest should be respected and guaranteed. This should be considered a legitimate form of participation in decision making in the interest of maximizing the benefits of mining for the host country.

Employment protection legislation (EPL) has been at the centre of debates on labour market reforms over recent years in the mining sector. In this, states and mainly state institutions have a key role in ensuring labour legislation compliance and addressing demands for social security, increase in wages and safety in the workplace.

- As a key step, mining states must ratify ILO Convention 176 as a baseline for health and safety standards in mining operations.

- A consultation process among local communities, authorities, and workers / trade unions should be established and enforced to discuss and address all possible issues, rights, and grievances pertaining to compensation, benefits and social security.

- Country labour legislations must include provisions that recognise the vulnerabilities specific to workers in the mining sector.

- States should demand from mining companies that adequate safety training is provided to workers and that company management is committed to employment security as part of state negotiating position.
RESEARCH PARAMETERS

Objectives of research

Research for this policy brief has explored the socio-environmental impacts and governance of mineral extraction. It was based on three in-depth case-studies, carried out in three locales: the lake Poopó basin in the Bolivian highlands, the Pascua Lama gold project in Chile, and the gold mining project of Eldorado Gold in Halkidiki, Greece.

The main focus areas of the research were:

- The impacts of mining on local and national development
- Workers’ and indigenous peoples’ rights
- State and mining companies’ socio-environmental management strategies

The present investigation was carried out within the “environmental conflicts” cluster of ENTITLE, and aimed to improve understanding of the socio-environmental impacts of mining.

Research for this action brief was part of a four-year PhD programme, carried out by the authors as part of the European Network of Political Ecology (ENTITLE) project. ENTITLE is multidisciplinary research project focused on exploring the relationship between environmental change and issues of power at multiple scales and in different locales.

Scientific approach/methodology

This research was carried out adopting a political ecology conceptual framework, applying political economy and social analysis to environmental governance. The investigation adopted a primarily qualitative social research methodology.

The researchers have conducted 92 in-depth, semi-structured interviews in the different fieldwork sites in Bolivia, Chile and Greece. They interviewed local activists and members of affected communities; mineworkers and miner union representatives; state representatives at municipal, provincial and national level; company personnel and industry analysts; experts in civil society organisations and universities.

Further reading


Perreault, T. (2013). Dispossession by Accumulation? Mining, Water and the
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