

The Significance of Memory and Monitoring: Resistances from the Valle de las Luciernagas

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1. Abstract

Since the exploitation agreement for the large-scale mining project Fruta del Norte (FDN) between the Ecuadorian government and Swedish-Canadian Lundin Gold was signed in December 2016, construction work has intensified at the mine site, impacting surrounding communities in a number of ways. This study focuses on the community of El Zarza, which is closest to the project.

Beyond the disenchantment elicited by the laundry list of unfulfilled promises about employment and financial benefits, families in the community of El Zarza also report negative impacts on family, community and their socioecosystemic health, as well as impacts to the community's infrastructure (roads, water system, housing). Furthermore, the processes of subtle dispossession or induced migration (displacement resulting from development) are gaining strength with the closure of more community schools. In 2015, schools in the communities of Santa Lucia, La Libertad, and Jardin de Condor were shut down. To date, two communities have been disappeared – the community of San Antonio in 2012 and El Playon in 2015.

In this context, the present study draws on the fields of collective health and political ecology to posit two fundamental processes: on one hand, the reclaiming of collective memory as an option to strengthen community organizing in communities threatened by the extractive industry; on the other hand, the implementation of a rigorous participatory community monitoring process as a scientific and political tool to systematize, condemn, and increase the visibility of the impacts with regards to the territory, family and community health, psychosocial harm, and infringement on rights. The overall purpose is to strengthen processes for the enforcement of the right to holistic reparations from, with, and for the community.

Keywords: large-scale mining, collective health, participatory community monitoring, collective memory.

2. Introduction

Yantzaza is a canton in the province of Zamora Chinchipe, located on the banks of the Zamora river. The origin of the name comes from the Shuar language and means “valley of fireflies.” Fireflies are one of the area's oldest inhabitants. They thrive in the humidity and darkness of night, and their presence symbolizes the balance of ecosystems, the richness of biodiversity, and the abundance of water.

Fruta del Norte is a large-scale mining project that is located in the parish of Los Encuentros, in the canton of Yantzaza, directly impacting the communities of Santa Lucia, La Libertad, Jardin del Condor, El Zarza, El Playon, San Antonio, and Rio Blanco. The wildlife refuge of El Zarza surrounds the community with the same name, and it is part of the Cordillera del Condor protected forest (*bosque protector*) which is one of the most fragile and biologically diverse ecosystems in the country (ITTO 2009). Mining companies have indicated the existence of copper and gold deposits in these lands.

In Ecuador, the first country to recognize the rights of Nature, approximately 15% of the national territory has been included in concessions for large-scale mining projects since the reopening of the mining registry in May 2016. Further, these concessions were issued illegally and

unconstitutionally, disregarding the significant social movements and resistance against extractive industries and the occupation of territories.

Although Ecuador has not traditionally been known as a large-scale metal mining country, its more recent history suggests a shift in this respect, fostered by the neoliberal reforms that opened the doors to foreign investment leading the first transnational mining companies to enter the country in the 1990's. The shift gained momentum during the "Citizens' Revolution," with the signing of the exploitation contracts for the Mirador and FDN mining projects (2012 and 2016 respectively) in the Cordillera del Condor, and specifically with FDN being considered one of the five strategic large-scale mining projects for the country.

3. Background

3.1 The Fruta del Norte Mining Project (FDN)

Transnational mining capital has had its share of uncertainty and challenges regarding Fruta del Norte, a project that passed through the hands of a number of companies: junior company Aurelian Resources, senior company Kinross, and currently Swedish-Canadian Lundin Gold. It is worth highlighting that, even though the project is only entering the development or construction phase, in which infrastructure for the future underground mine is being built, shareholders for these Canadian mining companies have already collected substantial earnings due to speculation and the project being repeatedly acquired and taken over.

Significantly, the deposit is of exceptional quality, grading at close to 10 grams of gold per tonne – a very high grade by international profitability standards. Considering the sizeable investments and the promising returns envisioned from the extraction of gold, FDN strengthens the wave of strategic large-scale extractive projects that positions Ecuador to soon become a large-scale mining country. From a technical perspective, the project requires US\$ 2 billion in investments and it will become a significant source of earnings for the company that owns it (Lundin Gold).

It is worth mentioning that FDN is an underground gold mining project that will use highly toxic chemicals such as cyanide. This factor, combined with the specificities of the land (the Cordillera del Condor and its outstanding biodiversity), makes for a number of environmental concerns that threaten the banks of the Zamora river and the Cordillera del Condor protected forest.

In addition, the Swedish-Canadian company's social and environmental track record is of concern for communities in the Condor mountain range. There have been allegations against members of the Lundin family and other associates of providing funding to armed factions during the civil war in the Democratic Republic of Congo, doing business and collaborating during Apartheid in South Africa, and of complicity in crimes against humanity in Sudan, where approximately 200,000 people were forced to leave their lands and thousands more were killed. This last allegation is currently the subject of a Swedish investigation (Acción Ecológica 2017). Furthermore, there are allegations of corruption involving management of the Lundin family.

The concession contract for Lundin Gold regarding FDN was signed despite the 13 observations of serious infractions that were brought up in the assessment carried out by the Directorate of Project and Environmental Audits of the Comptroller General's Office¹ unveiled in February 2017. Despite the above infringements on the law, in January 2018 the project entered the

¹ Original name: Dirección de Auditoría de Proyectos y Ambiental de la Contraloría General del Estado

development phase, in which infrastructure for gold extraction is developed. Since then, the persecution of communities has intensified.

3.2 The community of El Zarza

The families of El Zarza feel that their hands are tied. They conceive of large-scale mining as a punishment. They live in a form of submission or consensual slavery, in which it has become the norm to beg for work as labourers in conditions of exploitation that are subcontracted and with no labour rights. With increasing government control and regulation of the productive use of their territories, and lacking incentives for artisanal agriculture and livestock farming, communities could not guarantee their material reproduction and, gradually, people saw no option but to leave. El Zarza is disappearing. There are fewer and fewer children in school and fewer families in the community. On the other hand, there is an increasingly noticeable presence of dump trucks, haul trucks, and heavy machinery constantly travelling through the Cordillera, day and night. The glow of their headlights has replaced that of the fireflies, the vibrations have damaged the community's infrastructure, the dust affects the water system, and wildlife, feeling displaced, have begun to affect daily life in a significant way. There was therefore no need for large-scale mining companies to resort to physical violence for the dispossession of the land and control of the territory. Rather, in this form of "subtle dispossession," youth, children, and fireflies simply left.

It is worth recalling the two-fold effect of the stigmatization and criminalization of artisanal and small-scale miners. These actions allow for their dispossession so that large-scale mining companies can exert control over the territories that they need for their activities. Further, entire families who have lived in these areas for decades are thus transformed into illegal, informal, dangerous people who are to blame for pollution.

4. Methodology:

The monitoring process lasted a period of six months and involved all families living in El Zarza. There were three components to it: ecosystemic (flora, fauna, ground, water, noise, air, river), family health, and psychosocial wellbeing (social conflict, social organization, political violence). Monitoring was not seen as only a technical tool, but also a political tool for empowerment, denunciation, and enforcement of holistic reparations for rights violations. We conceive of participatory community monitoring as a move away from classic models of epidemiological monitoring, and a move towards thoroughly participatory processes which "understand that critical processes at the community level embody the protective and destructive determinants that emerge in group-based ways of life and that, within these, specific family lifestyles and the conditions of each individual organism and psyche are expressed" (Breilh 2003, 941).

When developing the community monitoring process, we adopted participatory action research (PAR) as our methodological and ethical framework, given that it steps past the research-action dichotomy as well as the subject-object split. PAR supports the development of a dignified form of science, research for transformative and deeply participatory action, and understands participation as a right, a duty, and a tool.

Furthermore, during a community assembly participants agreed on the significance of carrying out a project that would be parallel to the monitoring, and which consisted in recording the history, the conflicts, the fears, and dreams held by this community that had, at some point, favoured the arrival of the transnational mining company and which currently faces dispossession and impoverishment, among feelings of deception and guilt. The community of El

Zarza celebrated the possibility of writing a collective narrative. Together, we discussed the components, key informants, and name that the story would bear.

As we wrote, we validated each account in focus groups which prioritized the participation of those who had resided in the area the longest. We felt that writing the story was an important way to protect the community, a reminder that there was a past before the arrival of transnational mining companies – a past in which the community's population was large and organized and, by the glow of the fireflies, celebrated, worked the land, and was sovereign. The narrative also sought to strengthen community cohesion and the possibility of thinking the future and working towards it.

During the process, political education trainings were offered, dialogues with other communities affected by displacements and pollution were fostered, and the first system for community monitoring of collective health in the area was established. The families were thus charged with recording the changes in their own health and that of their ecosystems as the large-scale mining conflict developed. It was at that time that we became aware that “the fireflies were disappearing.”

We adopted the community monitoring model as a technical tool and, especially, a political one, as a way to allow for and encourage empowerment, given that it is the communities themselves that carry out a rigorous record of the impacts, harms, violence, and violations of the rights of Nature, and of their social and human rights.

5. Findings and Reflections from the Monitoring and Narrative Processes

Throughout the last few decades, there has been an increase in social and environmental conflicts in Latin America and the Global South around the appropriation and control of nature, or rather, territories, for exploitation purposes. Drawing on the layered analytical lens proposed by political ecology and popular environmentalism, we understand the notion of territory as a living socioecological space in which people, organized in social groups with specific productive strategies, forms of labour, social reproduction, consumption patterns, cultural life, and identity construction, transform their ecosystems and, in so doing, are also transformed by them (Solíz 2016).

In this manner, beyond a political and economic model, extractivism is imposed as an ideological model (Bauman 2005) in which national states strike deals with a limited number of transnational corporations granting control of the territories for the consensual appropriation of nature, under a form of technological coloniality. Shielded by the hegemony of mercenary or ecoefficient environmentalism (*ecologismo mercenario o ecoeficientista*) (Martinez Alier 2011), transnational mining companies have used the social and environmental responsibility argument and the charm of their specialized technologies to justify the dominance, control, dispossession, and plunder of hundreds of local communities in the Global South.

It is no secret that large-scale metal mining is probably the most destructive activity for territories. The devastating impacts affect their material and symbolic dimensions, rupturing and altering all five processes of social metabolism: appropriation, transformation, circulation, consumption, excretion. In the same way, the occupation of Indigenous and *campesino* territories by extractive transnational companies takes place in a type of state terrorism that involves the militarization of territories and the persecution, criminalization, and killing of Indigenous, environmental, and *campesino* leaders (Martinez Alier 2013).

The main reflections arising from the systematization of the monitoring process during these initial six months can be summarized as follows:

- a. Considering the signing of the agreement and the increase in development activities at the mine site, the community chose specific bioindicators to systematize the growing ecosystemic impacts. On one hand, we documented the disappearance of fireflies. The symbolic significance of these insects, to the point of being the inspiration for the name of the canton of Yantzaza itself, has been taken up as the guiding thread for this book. On the other hand, the process showed evidence of a noticeable decrease in the number of lowland pacas, armadillos, and fishes while also indicating the presence of pumas and panthers that threaten the communities and attack domestic animals as a means of sustenance, due to the destruction of their habitat.
- b. One of the first critical processes identified through community monitoring was the occupation of land, air, and water territories. Families who have historically inhabited these communities feel that they have lost control over their territories and, therefore, their lives. They fear violent dispossession and displacement, losing their lands and being forced to migrate to the city. These processes of occupation of territory therefore impose new territorialities. Communities that were historically involved in autonomous and sovereign production processes now see their activities restricted by a set of regulations that narrow their options to just one: to wait for the company to give them a job. The impossibility of guaranteeing minimum standard conditions for material reproduction has resulted in massive migration, which should be considered as processes of induced displacement or dispossession.
- c. The control and closure of schools is another determining element in the process of occupation, dispossession, and induced migration. Schools are the centrepiece of social organization, they represent the possibility of thinking the future and working towards it, of dreaming about better life conditions for children. As such, schools sustain communities. Therefore, the closure of schools inevitably results in communities disappearing. In the last year, three more schools, the ones in the communities of Santa Lucia, La Libertad, and Jardin del Condor, have been closed. This is in addition to the disappearance of the community of El Playon where, at the moment, only two families reside.
- d. Family health was analyzed and monitored drawing on the perspective of social determination – a multidimensional lens that examines reality in its macro, mezzo, and micro domains. From this perspective, we examined the sociohistorical segregation of the territory, the typology of ways of life, exposure to processes protective and destructive to health and, lastly, the ways in which these were embodied.
- e. Lundin Gold's occupation and control of local territories in the area surrounding the mine site has transformed the five aspects that structure ways of living in the communities: firstly, production models are affected as a result of changes to small-scale production economies (with no jobs, and with the increasing control of autonomous, sovereign production activities, families are no longer able to ensure their material reproduction). Secondly, social reproduction, insofar as the way in which care and upbringing of new life is organized, begins to be determined also as a function of the mining company and its provisions. Thirdly, the consumption of food, water, and health services become subject to large-scale mining as it replaces the state and takes on the role of determining if and when social rights are granted. Fourthly, social

organization is affected at its fabric, due to the disintegration of social links, unities, the sense of trust and solidarity. Lastly, relationships with nature are altered as the state and the mining company take on a mediator role, setting increasing regulations and prohibitions on the historic relationships that communities had with nature, mediated by their work (small-scale mining, hunting, fishing, firewood collection).

- f. Based on these analyses, we were able to ascertain that the families who have the highest levels of harmful exposure and whose physical and psychosocial health is most affected are those whose livelihoods depend on employment from the mining company as labourers, in subcontracted positions, and in artisanal mining, whether legal or illegal.
- g. The expression of physical and psychosocial harms was examined based on a monitoring process that combined self-assessments and monthly visits by teams of professionals in the fields of health, psychology, and law, for a period of six months. The high prevalence of negative impacts on both physical and psychosocial health could not be denied. Keeping in mind that families in El Zarza tend to be nuclear and small, it is important to note that some reported more than one condition per person for months on end. For example, in the case of families that indicated an average of 10 to 16 manifestations of physical health conditions, this would mean that members of this family experienced more than one expression of morbidity or that these occurred repeatedly during the six months of the study. The study provides evidence of the ways in which, as development activities have intensified at the mine site, there has been a noticeable increase in acute respiratory infections, dermatological and ocular conditions, and emotional distress resulting from the constant noise and the tremors in lodgings caused by the heavy traffic. The harms noted above were reported continuously during the six-month monitoring period.
- h. Our examination of psychosocial harms also focuses on dimensions at the individual, family, and community level, using the following markers: psychoemotional impacts, psychosocial harms expressed at a cognitive level, at a physical level (marks on the body), maladaptive mechanisms to face reality, changes in belief systems (customs, traditions, and other cultural expressions), changes in communication and specific ways in which women and children are impacted. During the monitoring process, the markers that were most often brought up and which rated the highest were changes in the frequency and intensity of feelings, psychosocial harms expressed at a physical level, changes in customs and traditions, changes in the frequency and intensity of fears, changes in attitude towards the world in the forms of perceived persecution, control, political violence.
- i. At the community level, psychosocial harms are expressed in a number of ways. Some pertain to feelings of negativity, distress, frustration, many of which are clearly linked to the fear of losing the territory, dispossession and displacement, pollution of the ecosystems, destruction of nature and the lack of work or economic alternatives.
- j. Psychosocial harms expressed at a physical level are especially noticeable for elders and women. These physical representations appear to embody the isolation and abandonment that they experience, the fear of losing the land and their feeling of powerlessness, the submissive way in which they have accepted these processes of structural social conflict as an imposed condition. It is the way in which the body can express their intense concern for their material reproduction, lack of work, and the prohibitions on their productive autonomy on their farms.

- k. Conflict over jobs, occupation of the territory, water pollution, heavy and continuous road traffic, the deterioration of the community's infrastructure, unfulfilled promises, fear of displacement, poverty, and state neglect all contribute to the weakening of the organization, cohesion and communication of families and their communities. There is much blaming for the current situation. Many of the community members feel that the arrival of the mining company was their fault, indicating their belief that they could have prevented it. They experience the lack of employment, the poverty, and the neglect as a form of betrayal and disappointment.
- l. Community members acknowledge that weakening community relations are related to the company, the search for work, the company's preferential treatment of specific community members, the compensation measures, and the growing prohibitions on productive autonomy. A good number of the harms at a psychosocial level pertain to issues of employment, lack and loss of employment, the inability to engage in autonomous production processes, exploitation at the workplace, and the physical and psychosocial fallout from these issues.
- m. One of the main critical processes identified concerns the loss of celebration and traditions. Community members think of the past nostalgically – they talk about a festive past, where celebrations were commonplace and the community was united. They feel that the conflicts generated by the presence of the mining company have resulted in the community losing its joy, unity, and organization, and that mistrust and lack of unity are now the norm. They use metaphors such as the desert, a godforsaken town, to allude to their feeling of desolation, abandonment, and loss of celebration.
- n. The specific ways in which women are impacted concern, firstly, the limitations and control of their material reproduction. Women experience the economic pressure of depending on their partner's salary and/or of their territory being occupied which limits their productive autonomy. The company does not allow them to work. The cases of women being employed by the mining company for catering or cleaning tasks are few and far between and even these tasks are increasingly handed to men. Further, and as we have already stated, the suppression of alternatives for autonomous and sovereign production results in a three-fold control of women: from the state, from the mining company, and from their partners.
- o. Our analysis of rights violations indicates that at least ten rights have been violated: the right to a healthy environment; to property, access to land and its resources; to freedom of movement and residence; to food; to dignified work; to submit complaints before government authorities; to access to information; to participation and consultation; to access to benefits from mining; to holistic reparations.

Lastly, in this article we insist on the importance of the reconstruction of collective memory for the enforcement of holistic reparation processes in communities affected by extractive industries, plunder, and political violence. This community narrative is gathered through a type of dialectic process of theory-praxis-theory that, on one hand, enriches the academic debate and, on the other, allows for opportunities to support the community of El Zarza in their work to strengthen their organizing, resistance, defense of the territory, and denunciation. In other words, the recovery of the community's collective memory was carried out from, with, and for the community. It was a process of weaving the story of these communities, which have inhabited and defended the mountain range, and which granted life and meaning to the territories.

That is our intention. We hope that the lights of resistance that are still glowing deep in the mountain range will not be dimmed, that our Cordillera del Condor will continue being the valley of the fireflies.

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