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Artículos Científicos

Impacto socioambiental de la minería a cielo abierto en Mezcala, Guerrero, México

Socio-environmental impact of open-pit mining in Mezcala, Guerrero, Mexico

*Impacto socioambiental da mineração a céu aberto em Mezcala, Guerrero,
México*

José Luis Ramírez Macedonio

Universidad Autónoma de Guerrero, México

JOSELUISRAMIREZMACEDONIO@outlook.com

<https://orcid.org/0000-0003-0481-1698>

Neftalí García Castro

Universidad Autónoma de Guerrero, México

ngarciaca@conacyt.mx

<https://orcid.org/0000-0001-5144-4224>

Resumen

La minería a cielo abierto (MCA) es una de las actividades económicas que más afecta a los ecosistemas y a los asentamientos humanos cercanos. Por eso, el propósito de la presente investigación fue exponer el impacto socioambiental de la MCA relacionada con el proyecto Los Filos, localizado en Mezcala, Guerrero. Este trabajo de investigación se dividió en dos fases: primero se realizó una revisión de la literatura especializada en torno a la MCA; en esta parte del trabajo de gabinete se seleccionó información puntual con la finalidad de enfatizar los escenarios socioambientales que caracterizan a esta actividad económica y, consecuentemente, identificar los factores substanciales que han dado lugar a la reconfiguración socioambiental de Mezcala. En una segunda etapa, se realizó un muestreo no probabilístico; se contactó a un informante clave para establecer comunicación con otros actores sociales fundamentales cuya actividad cotidiana está asociada a la explotación minera que se realiza en esta localidad guerrerense. Con base en lo anterior, se identificó que, en Mezcala, la actividad minera ha ocasionado sobreexplotación de diversos recursos naturales indispensables para la extracción de oro. De hecho, se puede afirmar



que el proyecto Los Filos no es sustentable, sino una actividad que afecta negativamente y a un ritmo acelerado al entorno físico. La explotación de los recursos naturales ha permitido obtener a las mineras extranjeras utilidades importantes, sin redituar beneficios económicos a la población local ni resarcir los daños ocasionados por la puesta en práctica del modelo extractivo-exportador.

Palabras clave: acumulación por desposesión, impacto socioambiental, minería a cielo abierto, modelo extractivo-exportador.

Abstract

Open-pit mining is one of the economic activities that most affects ecosystems and human settlements near them. The purpose of this research was to expose the socio-environmental impact of the Canadian company Goldcorp, In the town of Mezcala, Guerrero. This research work was divided into two phases; First, a review of the main cognitive contributions related to MCA was carried out; In this part of the cabinet work, timely information was selected in order to emphasize the socio-environmental scenarios that characterize this economic activity and, consequently, the substantial factors that have led to the socio-environmental reconfiguration of Mezcala. In a second stage, a non-probabilistic sampling was performed; a key informant was contacted to establish communication with other fundamental social actors whose daily activity is associated with the mining exploitation carried out in this Guerrero town. Based on the foregoing, it was identified that, in Mezcala, mining activity has caused over-exploitation of various natural resources essential for the extraction of gold. This project is not sustainable, but on the contrary an activity that negatively affects the physical environment, at an accelerated rate. The exploitation of natural resources has allowed Goldcorp to be obtained important economic benefits; without redeeming the local population, nor compensating the damages caused by the implementation of the extractive-export model.

Keywords: accumulation by dispossession, socio-environmental impact, open-pit mining, extractive-export model.

Resumo



A mineração a céu aberto (MCA) é uma das atividades econômicas que mais afeta os ecossistemas e assentamentos humanos próximos. Portanto, o objetivo desta pesquisa foi expor o impacto socioambiental da MCA relacionado ao projeto Los Filos, localizado em Mezcala, Guerrero. O trabalho de pesquisa foi dividido em duas fases: primeiro, foi realizada uma revisão da literatura especializada em torno do MCA; Nesta parte do trabalho do gabinete, foram selecionadas informações oportunas para enfatizar os cenários socioambientais que caracterizam essa atividade econômica e, conseqüentemente, identificar os fatores substanciais que levaram à reconfiguração socioambiental de Mezcala. Em um segundo estágio, foi realizada uma amostragem não probabilística; Um informante chave foi contatado para estabelecer comunicação com outros atores sociais fundamentais cuja atividade diária está associada à exploração de mineração realizada nesta cidade de Guerrero. Com base no exposto, identificou-se que, em Mezcala, a atividade de mineração causou superexploração de vários recursos naturais essenciais para a extração de ouro. De fato, pode-se dizer que o projeto Los Filos não é sustentável, mas uma atividade que afeta negativamente o ambiente físico em ritmo acelerado. A exploração de recursos naturais permitiu obter importantes lucros de mineradoras estrangeiras, sem reduzir os benefícios econômicos para a população local ou compensar os danos causados pela implementação do modelo de exportação extrativa.

Palavras-chave: acumulação por desapropriação, impacto socioambiental, mineração a céu aberto, modelo extrativista de exportação.

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Introduction

Open pit mining (MCA) is one of the economic activities that harms both the ecosystems and the nearby human settlements. In the community of Mezcala, belonging to the municipality of Eduardo Neri of the state of Guerrero, is the open pit mine called Los Filos project, which has co-opted a large part of the community. Ten years after the start of its operations, however, socio-environmental transformations begin to be noticed contrary to the message of local economic growth issued by both federal, state and municipal authorities and by those in charge of the Goldcorp mining company. Indeed, in this Guerrero town there has been a process of accumulation by dispossession, which has contributed to the inhabitants of this segment of the guerrilla territory

transferring their natural resources to the mining company, thereby violating the rights of the local population (Harvey, 2003).

In poor countries, national governments seek income through the granting of permits, exploration, exploitation and export licenses (for example, from energy sources, mineral deposits, forest resources), as well as the construction of large infrastructure projects (dams, roads, railways, tourist complexes) or the introduction of agribusiness companies. This causes that governments and foreign and national companies tend to discard any principle of consultation or other mechanisms associated with the participation and respect of the rights of populations affected by the extraction of their resources, pollution, eviction or loss of cultural, social and territorial sovereignty (Del Álamo, 2005).

In the particular case of the United Mexican States, the constant reforms to the laws and regulations that regulate the behavior in society of the population, the State and its institutions, as well as the signing of different international trade agreements, have given guidelines to the extractive-export practices that directly affect the environmental, social, economic, political and cultural dynamics of the rural communities where mining projects are based in the short, medium and long term (González-Ulloa, 2010). At present, the exploitation of natural resources has encouraged the opening of borders to external markets; in fact, companies outside a Nation-State are allowed to directly enter into different areas of economic life, although in most cases the socio-territorial conditions of the sites they reach are not compatible with the economic-productive model imposed.

The insertion of mining in multiple territories generates diverse consequences: for example, in the physical aspect the water table is modified, groundwater is displaced, surface and underground water is contaminated with mineral salts, sulfates, nitrates, oxides, oils, greases, lubricants, chemicals, explosives and heavy metals (arsenic, lead, cadmium, chromium, cyanide and mercury), as waste and dams accumulate pollutants, which are usually absorbed by vegetation, drain to surface currents of water or seep into the subsoil with what contaminates groundwater.

In addition to this, the massive extraction of water causes desertification, droughts and depletion of water sources, which generates topographic and geomorphological changes due to the removal of the surface layers of the land. Simultaneously, socioterritorial conflicts arise, mainly due to the rights of exploitation of the land, as well as the decrease of agricultural, livestock or fishing activities. In other words, local economic activities disappear completely in most cases and the customs and customs of the local population are modified (Svampa and Antonelli, 2009).



In the last decade, in Mexico, a total of 503,759.4 tons of gold was generated. However, it should be noted that to obtain a single gram of gold one ton of soil must be removed, for which about 1000 liters of water can be used to separate it from other metals. Therefore, to generate the volume of gold indicated, 503,759,400 tons of land were removed and more than 503 billion liters of water were used (the equivalent of filling the Azteca Stadium 500 times) (Mexican Network of Mining Affected [Remamx], 2017).

According to the Mexican Geological Survey [SGM], the following twelve mining regions are counted in Guerrero: Coyuca-Zirándaro, Cutzamala, Arcelia-Teloloapan, Buenavista de Cuéllar, Mezcala, Mochitlán-Quechultenango, La Unión, La Dicha, La Montaña and Papanoa . Of these areas, the district that constitutes Taxco and Mezcala is the most productive (SGM, 2018), which is constituted by the Guerrero, Remedios and San Antonio mines, which belong to the Mexican mining concession, which obtains a production of 1682 tons of different minerals, including gold.

In Los Filos - a mining project established in the towns of Mezcala and Carrizalillo - it is intended to extract 60 million tons of gold in twenty years. Each year, on average, it generates an economic spill of 800 million pesos in payments to workers, services, land acquisition, etc. 800 direct jobs are generated, between 3,000 and 4,000 indirect jobs, and it should be noted that the machinery that is in operation is one of the most complete and advanced in the world (SGM, 2018). Given this reality, the following question may be asked: what will be the socio-environmental impact of this economic activity in the territories with important mineral deposits? To try to answer this question, this paper attempts to expose the socio-environmental impact of the Canadian company Goldcorp in the town of Mezcala, Guerrero.

Materials and method

This research work is divided into two moments: first, a review of the main cognitive contributions related to MCA was carried out; In this part of the cabinet work, timely information was selected in order to emphasize the socio-environmental scenarios that characterize this economic activity to identify the substantial factors that have led to the socio-environmental reconfiguration of Mezcala. Emphasis was placed on the changes in natural resources, productive supports and their social, economic, political and environmental implications.

In the second stage a non-probabilistic sampling was performed; A key informant was contacted to establish communication with other fundamental social actors, whose daily activity is

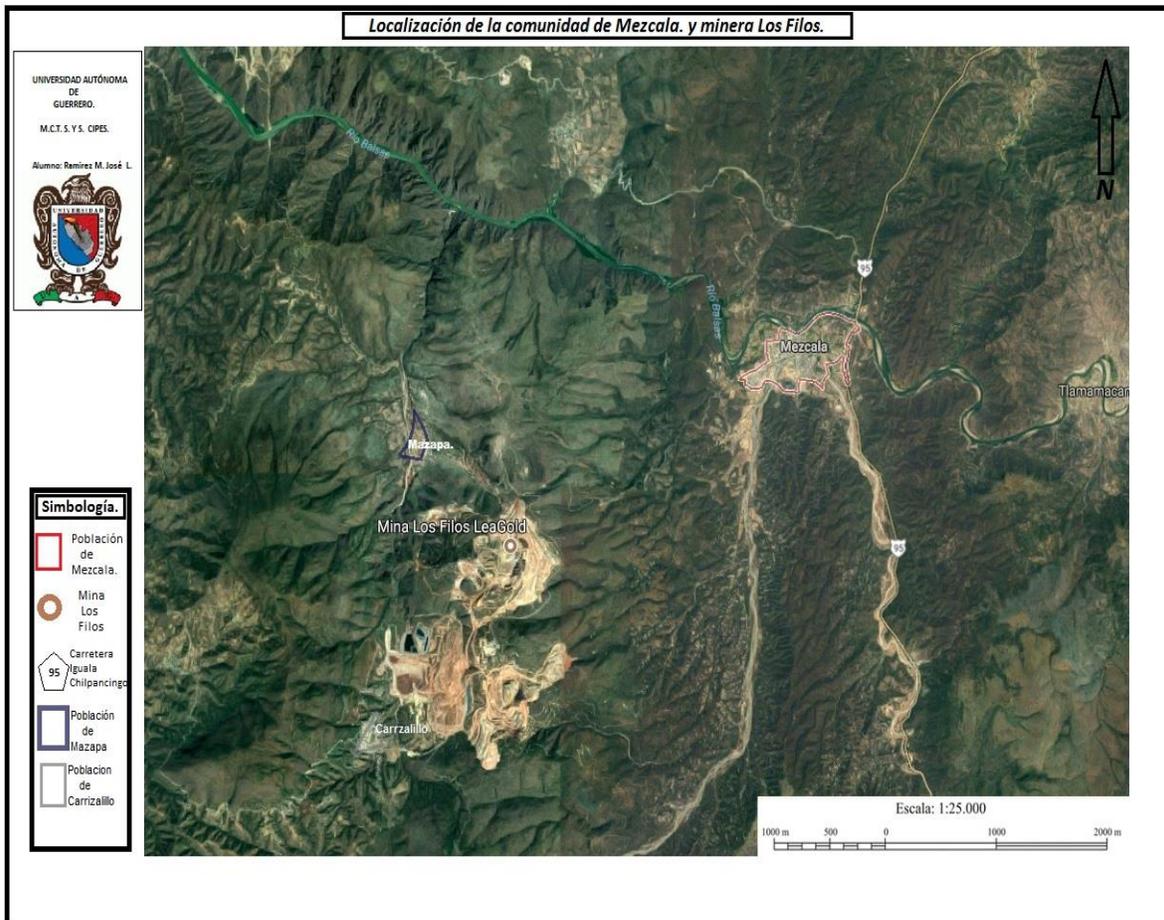


associated with the mining exploitation carried out in this Guerrero town. In this way, information was collected through semi-structured interviews that were prepared based on the approaches taken from the work of Svampa and Antonelli (2009), entitled Transnational Mining, development narratives and social resistance, which frames, from a critical view, the current reality that Latin America is suffering in terms of megaextractivism. These approaches allude to the general picture of the political, social, cultural, environmental and destructive problems that mining corporations are carrying out in territories with important mineral deposits.

Study area

The town of Mezcala is located in the municipality of Eduardo Neri (Guerrero), 50 km from the city of Chilpancingo (figure 1) and is located 480 meters above sea level (m s. N. M.). According to official figures from the National Institute of Statistics and Geography [Inegi] (2019), in this human settlement there are 2251 people, of which 65% are women. In Mezcala there are 1007 homes, of which 96.8% have electricity, 56% have piped water, 90.4% have toilet or toilet, 56.4% radio, 86.0% television, 82.5% refrigerator, 44.1% washing machine, 31.7% car, 12.5% a personal computer, 31.1% landline, 42.3% cell phone and 7.53% internet. The Los Filos mine is located in the southwestern part of Mezcala (Ministry of Social Development [Sedesol], 2019). The Los Filos deposit is one of the richest in the world. Mineralogy studies show proven reserves of 6570 million ounces of gold (Garibay y Balzarette, 2009).

Figura 1. Ubicación del área de estudio



Fuente: Elaborado con base en el Inegi (2019)

The Los Filos project had, since its inception, the extraction of metallic minerals, mainly gold and silver; a total of 60,077,000 tons of precious metals, for which 117,853,000 tons of earth, stone, etc. must be removed. To carry out all this the following actions were necessary: 1) equip the electrical substation located in Mezcala, 2) pipe water from the Mezcala River to take it to the storage tank used in the mine and 3) rehabilitate the roads that lead to the project.

In a second moment, the company was given the following tasks: 1) build the pit, 2) build polvorines, 3) condition the surface water tanks, 4) enable the area of crushing and agglomeration of minerals, 5) build yard of leaching and batteries for solution recovery, 6) create the plant for adsorption, adsorption, recovery and smelting, 7) build the metallurgical laboratory and tests, 8) build offices, workshops and warehouses, 9) build communications roads from the pit to the deposits, industrial and services area and 10) start up other mining unit services works.

The Canadian company Goldcorp is responsible for the acquisition, exploration, development and operation of properties rich in mineral deposits. This corporate has been listed as

the owner of mining projects in Canada, the United States, Mexico, as well as in Central and South America. The company is based in Vancouver (Canada) and was founded in 1994 by Robert McEwen, who served as executive president, director and owner until 2005. The main operating products of Goldcorp (besides gold) are silver, copper, lead and zinc . Likewise, it is important to mention that Goldcorp's most significant mining operations have the following territorial distribution: it has four mines in Canada, four in Mexico and four in Central and South America, respectively. In April 2017, Goldcorp sold its Los Filos mine to Leagold Mining for \$ 350 million (\$ 279 million in cash and \$ 71 million in Leadgold shares) (Cortez Gold Corp. [Cortez Gold], 2019). This Canadian company is one of the main producers of gold in Latin America (an example of this is the production derived from its operations carried out in the state of Guerrero). The mineralized strip of approximately 80 km that exists in this Mexican entity has set a standard for this state to stand out as one of the main gold producers in recent years. The state of Guerrero has grown to become the fourth largest gold producing state in Mexico.

Framework

To a large extent, economic exploitation is usually the result of the operational rules imposed by certain transnational capitalist groups; these dictate that in the territories where they are installed there must be profitability to be able to receive significant economic remuneration. In the last century and a half, while global capitalism has been advancing, the nation-states have ceded part of their sovereignty. Regarding socio-economic decisions, transnational corporations have consolidated their dominance over life on the planet. Specifically, in the three recent decades, the process of economic globalization and the expansion of neoliberal policies have served to build a worldwide political, economic, legal and cultural framework, of which large corporations have been the main beneficiaries (Ramiro and González, 2013).

In this context, according to the specialized literature, the extractive-export model has the essential characteristic of seeking maximum benefit in a short period of time, as far as possible, to achieve its main objective: the accumulation and centralization of capital , raw material and labor. The hegemonic economic groups act globally and omit the autonomy that each Nation-State has by designation granted in international and national law. However, the implementation of these transnational practices, which by nature tend to change location constantly (almost completely ignoring that the geographical space in which they carry out their activities is governed by laws and regulations), violates and breaks the daily activities of multiple territories Subsequently, after

their work, they move to another space and repeat their modus operandi (Svampa and Antonelli, 2009).

In most cases, transnational companies often seek fiscal flexibility and are close to natural resources. In this way they get a favorable market for the sale of the product, as well as a poorly resourced labor force; all this under the protection of laws and regulations with institutional gaps and other organizational deficits that are generated from the economic instability that governs the majority of poor countries. The operations benefit the transnational consortiums, the territoriality changes according to the customs and customs of the countries to which these corporations arrive and this is used to put into practice the vicious circle of extractive-exporting activities. In this way, accumulation by dispossession takes place, which consists in the use of methods of original accumulation to keep the capitalist system, commercializing areas previously closed to the market. While the original accumulation meant the implantation of a new system, by displacing feudalism, the accumulation by dispossession aims to maintain the current system, impacting on the impoverished sectors (Harvey, 2003).

In the work *The new imperialism: accumulation by dispossession*, Harvey (2003) recounts the phases of capitalism, which reoccur in the past and modern commodification-privatization of original populations, which results in the transformation of the rights of collective property in private rights for single use. Thus, labor becomes an item put up for sale at a low cost, with the consequent modification of historical daily life and its metamorphosis in non-sustainable modern practices, which are based on the appropriation of assets, including natural resources, as well such as the monetization of exchanges and the collection of taxes, particularly of land, usury, public debt and, finally, the credit system. In that context, many of the natural resources that were previously communal property are being privatized and subject to the logic of capitalist accumulation. In this way, alternative forms of production and consumption tend to disappear (nationalized industries are privatized, family farms are displaced by large agricultural enterprises and contemporary forms of slavery emerge) (Harvey, 2003).

Based on the foregoing, the extractive-export model has intensified in Latin American territory. This economic activity consists in exploiting various natural resources for commercialization in some territory; a component or element of public exploitation becomes a private product from which an economic benefit is sought that will not yield economic benefits to the local population or will not be reflected in compensation for the damage and modification



caused by the implementation of this type of economic activities. In general terms, according to Castro (2005), the extractive-export model can be defined as follows:

[Set of activities] on a large scale to take out, extract, obtain or separate elements of nature, which incorporates price and ownership in order to obtain the highest possible profit, and which avoids restoring, repairing, mitigating, compensating, consulting and inform, without assuming the costs of said extraction. It does not take into account environmental, ecological, cultural, political, social, economic or local aspects. Eliminates its own sources of reproduction and accumulation of capital; It does not take into account the time for natural commons to reproduce, nor does it consider exhaustion and irreversible damage to the environment. It does not consider the long-term consequences, concentrates land, fulminates territories, expels villages and determines investments of public and private infrastructure to facilitate extraction. His interests are above human rights. The actors of this model have a name: the increasingly large supranational corporations (p. 5)

The MCA, in other words, totally modifies the environment in which it operates and transforms everything that surrounds the area in question. It also generates a lot of noise at the time of crushing and grinding, when the machinery comes and goes, the air is contaminated, different toxic particles are suspended and scattered, such as sulfur, cyanide or mercury residues. Surface water is contaminated by residues of fuels, lubricants and harmful reagents. The groundwater is contaminated by the filtration of the liquids that are in the batteries or batteries, or this natural resource is overexploited. In order for a mine to operate daily, the total water that a small family would need for approximately twenty years is used. The environmental impact is of considerable dimensions, plant and animal species are affected by the implementation of the MCA (Svampa and Antonelli, 2009).

In the social and economic aspect, the miners in charge of mega-farms completely transform local productive activities; In general, it goes from primary activities (agriculture, livestock, agriculture and fishing) to secondary activities, which are financed by foreign capital and which modify ecological, political, economic and cultural aspects of the area where they are installed. These transnational corporations gather and have large-scale financial and human capital available to them at any time. This concentration of power causes that when starting operations in a country or region they interact directly with the State and, henceforth, the power that institutions have over the places chosen by the mining companies is deterritorialized, hence the link is fragmented

between citizens and state. The database of the Observatory of Mining Conflicts in Latin America [Ocmal] recorded - at the date of preparation of its report - about 198 active conflicts due to mega-mining in the region. Of those conflicts, 26 occurred in Argentina, 20 in Brazil, 34 in Chile, 12 in Colombia, 29 in Mexico and 34 in Peru (Ocmal, 2014 cited by Becerra, April 27, 2014).

The MCA tends to generate disputes between owners of mining projects (concessionaires) and those who live in the territories where the extractive-export model is put into practice. On some occasions, the local population resorts to social activism to try to protect and conserve natural resources and their cultural identity. Throughout the national territory it seems that the disagreement is generalized due to unfair payment for hectares of exploited land, pollution of rivers, lakes, deforestation of forests, forests and plains, emergence of new diseases, total extermination of wildlife, loss of cultural identity and imposition of a new momentary way of working life. These characteristics are mainly present in the states of Chihuahua, Oaxaca, Puebla, Zacatecas, Guerrero and Chiapas. Therefore, Cárdenas (2013) points out the following:

Large resistance groups have been organized for a long time to defend the natural resources of the communities and agrarian nuclei affected by mining projects, mainly Canadian ones. This wave of social mobilizations, and the obvious legitimacy of the causes they defend, highlight the urgency of reviewing the regulatory framework of mining, to generate the changes that allow to process their collective demands through democratic legality and within the framework of the rights, recognized by our Constitution and by international law, of indigenous and agrarian communities (p. 57).

Results

This section is based on the guidelines disclosed in the research of Svampa and Antonelli (2009), Transnational Mining, development narratives and social resistance, which presents an overview of the environmental, social, political and cultural problems derived of the MCA. In this paper, an interview is presented about the Argentine case, a panorama not far from what happens in the rest of the American continent, including Mexico. With the data collected in the semi-structured interview that was carried out in Mezcala and the comparison of the findings identified in both Argentina and Mezcala, the following socioterritorial scenarios were found (Table 1): in Mezcala, mining has similar characteristics to those that have acquired this economic activity in most of the contemporary international context. Among the most outstanding features, the

overexploitation of mineral deposits stands out, leaving old techniques such as underground mining in a marginal position, since today these generate higher expenses for companies and important utilities are required in the shortest possible time .

In this way, the MCA has been strengthened as a highly profitable option; however, this kind of exploitation has caused noticeable environmental consequences; for example, the excessive use of water because this resource is the main input in the mineral extraction process. Water is obtained from the surface currents existing in the exploitation area (in this case of the Mezcala River, the closest to the Los Filos project). Water has a very low cost and is acquired directly from this surface current. In fact, if this resource is charged according to the volume used, the mining activity would not have such broad profits. The excessive use of water denotes that Los Filos is not a sustainable project, since its activities negatively affect the physical environment at an accelerated rate and with noticeable consequences in the relief, climate, surface currents, soil, as well as in vegetation and the fauna of this segment of the territory of Guerrero.

Tabla 1. Mezcala: escenarios socioambientales identificados

Transformaciones originadas por la MCA	
Beneficios	Económico Generación de empleo directo e indirecto. Entrega de subsidios para becas a estudiantes de la comunidad, apoyo económico a adultos mayores y personas con discapacidad. Infraestructura Apertura de caminos.

	Financiamiento de obras de pavimentación, alcantarillado, alumbrado público, saneamiento y reconstrucción de edificaciones (casas, iglesias y espacios públicos).
Vida cotidiana	<p>Actividades productivas Abandono de actividades agrícolas, pesqueras y ganaderas. Crecimiento de actividades comerciales y establecimiento de hospedaje (tiendas, hostales, restaurantes). Incorporación de poca población local a las actividades relacionadas con la mina.</p> <p>Relaciones sociales Surgimiento de conflictos comunales por el pago de tierras utilizadas por la mina. Mayor ingesta de bebidas alcohólicas. Aumento de actividades delictivas, entre ellas la prostitución. Transformación de las fiestas religiosas y cívicas (pérdida del carácter tradicional de estas). Menor cohesión social.</p> <p>Salud Proliferación de enfermedades dermatológicas causadas por los químicos que contiene el agua que se utiliza en la localidad, respiratorias originadas por la cantidad de partículas suspendidas que genera la actividad minera y digestivas debido a la ingesta del agua y los alimentos que se producen en esta parte del estado de Guerrero.</p>
Medio físico	<p>Relieve Desaparición de cerros y la formación de una oquedad de dimensión importante.</p> <p>Clima Aumento de temperatura.</p> <p>Corrientes superficiales Reducción del cauce del río Mezcala y contaminación del volumen de agua.</p> <p>Suelos Pérdida de fertilidad y contaminación de la superficie edáfica.</p> <p>Vegetación y fauna Pérdida de especies endémicas</p>

Fuente: Elaboración propia con base en información recopilada en campo.

MCA is a practice that does not provide guidelines for environmental conservation; It produces a high environmental imbalance, since its implementation implies non-sustainable activities because the natural resources obtained are not renewable, and those that are used for processing are exploited in excess. To this we must add that the Los Filos project has disrupted the operation of local economic activities in Mezcala. In this Guerrero town, immediately, mining entered into competition with other productive activities that existed in those sites, and not only impacted the neighboring populations, but also a large part of those that depend on the physical conditions of the environment to perform primary activities (basically the planting of corn and beans). In that order of ideas, it is essential to point out that the Mexican State does not have a national development plan that sets the tone for the rise and growth of the Mexican economy. This has favored the opening of the market for international consortia to enter the Mexican territory in different ways.

An example of this is the Los Filos project, which - thanks to the deregulation of Mexican laws and the abandonment of national mining - enjoys concessions in different parts of the Mexican territory, directly or indirectly through investments. Before the arrival of these, in Mezcala there were only small commercial establishments; however, international corporations have gradually disrupted the functioning of local economies. GoldCorp - and ultimately Leagold Mining -, with international economic operations, have functioned as fundamental economic-productive entities within the Mezcala community and even throughout the state of Guerrero. This is the result, to a large extent, of the alliance between the mining companies and the federal and state government. This coalition of political and economic forces, in full exercise of power, comply with stages and procedures to deter suspicions of an alliance between political and transnational groups. First, the existing regulatory framework has been transformed to favor foreign direct investments; proof of this is the so-called Pact for Mexico and the reforms that have been made in the upper and lower houses, as well as in the local congresses of the federative entities¹.

The federal entities usually obtain some economic benefits related to the installation of the mining industries in their territories; However, in most cases, a significant number of jobs are not generated and there are no economic spills with the necessary dimension to encourage a positive transformation of local economies (Ocmal, 2014). In the particular case of Mezcala, few inhabitants have been granted employment as a mine worker and some indirect jobs have been generated (in shops and in certain establishments that provide services); The inhabitants of this Guerrero settlement have obtained economic resources, infrastructure and benefits that the Mexican State had not guaranteed during six years. However, it is important to mention that the economic activity derived from the Los Filos project is temporary (between ten and twenty years maximum). In contrast, the environmental and socioterritorial impact will be permanent and the population will be in more adverse socioeconomic conditions because it will not be possible to resume primary activities due to the pollution caused in this segment of the territory. In this context of excessive exploitation of natural resources and ecological crisis, certain forms of organization of the population arise in order to preserve the environment and express their opposition to mining.

In the state of Guerrero there are several mining projects that must be launched. In Mezcala, for example, the local population has organized to demand the fair payment of the lands

¹ Este proceso ha tenido lugar desde el periodo de Salinas de Gortari, con la reestructuración de la ley minera, y hoy en día con lo establecido en el Pacto por México y la nueva ley de hidrocarburos, así como las diferentes reformas energéticas que el Estado mexicano ha implementado.

contemplated in the activities carried out by the mining companies. Likewise, in the region of La Montaña, the Tlachinollan Mountain Human Rights Center and indigenous communities in that region of the state of Guerrero are preventing mining companies from being installed due to the destruction they cause and economic, social and cultural desolation that leave when the life of the mine ends. Throughout the country there has been a voracious depredation by government authorities and transnational mining companies.

Unfortunately, mining companies and the Government often criminalize local forms of organization against the activities they carry out. Those who try to prevent the implementation of mining projects that are approved by law or by federal mandate are subject to judicial process. This is one of the points where structural reforms have also permeated with greater boom to curb social movements related to the preservation of the territory (Ocmal, 2014). In Mexico, and other Latin American countries, companies whose activity is based on the extractive-export model have been established, which has been made legal in the region, since exploitation rights have been granted in areas where important deposits are located minerals The State has lost control over certain areas and it is the private sector that dominates the extraction of mineral resources. Transnational corporations have resources of all kinds, which they can avail at any time. This concentration of power means that when starting operations in a given country or region they interact directly with the State, so that the power that institutions have over the places chosen by the mining companies begins to be deterritorialized and the bond between citizens is fragmented and State, all this to propitiate and avoid legal actions against the activities of transnationals.

For this, as a first step, the regulatory framework, the law that regulates and governs the rule of law and the behavior of mining companies must be modified. Secondly, the majority of the population must be convinced that the new productive activity will be a guarantor of welfare and economic sustainability, mainly. In fact, when talking about a majority, the sector that is usually against mining activity is not considered and the State (police) is in charge of them, arguing effectively that the law (already modified in the first step) allows the legal exploitation of certain territory

Discussion of results

This socio-environmental study represents one of the first conceptual and methodological approaches to the environmental, social, economic and political transformations that have taken



place in the town of Mezcala over the last decade; This gives guidelines for the strengthening of academic work linked to the study of the MCA and its multiple consequences in specific areas of the Guerrero territory. In addition, the present investigation establishes lines of analysis whose practical purpose is to reveal the current characteristics of the socioterritorial dynamics of a locality affected by mining, which can be a benchmark for decision-making from the perspective of the collective interests of the population local; in a timely manner, the most important features of the antagonistic relationship that usually exist between the miners and the inhabitants of the town are identified.

In particular, the work in the cabinet and in the field shed light on the enrichment by dispossession that occurs in this Guerrero town. In that order of ideas, these conceptual and methodological contributions put into discussion the benefits of the neo-extractive model based on two aspects: the first derived from the analysis of the approaches made in specialized literature and, on the other hand, based on the scenarios revealed by those social actors directly involved with this economic activity, which allows a more accurate knowledge of what happens in Mezcala.

The research results coincide with scenarios raised in previous research on MCA, such is the case of the work of Svampa and Anonelli (2009). For example, the fact that the MCA occurs in a national context of political instability, whose distinctive feature is a governmental panorama in which the economic reforms carried out by the federal Executive increased a socio-economic crisis that calls into question political work of the State. This is due to the late response from decision makers to counteract the effects of an economic model based on market opening and direct foreign investment. Therefore, this research could add to the academic efforts that analyze social movements and conflicts over natural resources in Latin America, from the perspective of local, regional, national and international strategies that have been implemented to deal with economic projects. of an extractive nature, especially the proposals made by non-governmental public actors (advisors, trade organizations, political, religious, etc.).

However, some lines of research for future work should gravitate around the impact that some of these actions have had, their areas of opportunity and their limitations. Above all, these works should approach those Latin American experiences that have drawn some solution to a specific conflict to try to unravel the main factors that set the tone for moving from the confrontation between some sectors of society towards a collaborative scenario. At the same time, the possible effects of this cooperation on the quality of life and equity among the members of the social groups that live in the areas endowed with the natural resources in dispute, as well as the



level of satisfaction of their demands and the type should be evaluated. of change that recorded the management of natural resources.

Conclusions

In this work some of the main effects of the MCA were analyzed; specifically, the socio-environmental impact of the extractive-export activities developed in the framework of the Los Filos project was addressed. It is that order of ideas, it is convenient to emphasize that when Canadian miners arrived at the community of Mezcala they co-opted everything that coexisted in the territory. From the beginning of its operations, GoldCorp, and ultimately Leagold Mining, expressed that their activities would give rise to a panorama of stability and economic improvement for the population of Mezcala; However, immersed in this pro-MCA discourse was implicit in the violation of the rights that citizens have as inhabitants of Mezcala, that is, the full enjoyment of the benefits derived from the use of natural resources that exist in the town and the use of the physical environment to carry out their daily activities, without jeopardizing the existence, social and environmental balance of the community. Cabinet and field work set the tone to detect that there is a form of agreed settlement and politically sound links have been created; the different levels of government have consistently favored the activities developed by the miners in Mezcala.

Frequently, the authorities invent and argue a socially and economically sound future, and the solution to the population's problems is guaranteed, which provides a guideline so that laws and regulations are not respected through structural reforms with the purpose of bidding in a manner extensive and unrestricted exploitation of natural resources. When analyzing the different laws that have been reformed, it can be noted that the Mexican State is an instrument of control that invests all its capacities in the prevention of social movements in defense of the territories, through the generation of jobs and the economic support for the inhabitants who offer no resistance or the use of violence to deter any collective activity organized by dissatisfied citizens.

In general, there is usually a cover-up of the transformation that Mezcala is undergoing: the accumulation of capital at an incalculable cost of ecological instability. Ten years after the start of the MCA, it has not yet been accounted for; however, the concern of the inhabitants begins to be noticeable individually and collectively. In the study of the community of Mezcala, she realizes how transnationals and the globalizing phenomenon are positioned in communities that seemed not to be important in the regional economic framework. Likewise, it is possible to see that Mezcala

lacks local organization because the inhabitants of this site have a high degree of labor and economic dependence on the mine. The historical past that characterizes this town has changed meaning: there is a reconfiguration of the identity and the non-appropriation of the territory by the new generations is allowing the extractive-exporting activities to exterminate the environment and, consequently, a future is being left desolate for the population.

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Rol de Contribución	Autor (es)
Conceptualización	José Luis Ramírez Macedonio (50%) Neftalí García Castro (50%)
Metodología	José Luis Ramírez Macedonio (50%) Neftalí García Castro (50%)
Software	Neftalí García Castro
Validación	Neftalí García Castro

Análisis Formal	José Luis Ramírez Macedonio
Investigación	José Luis Ramírez Macedonio (50%) Neftalí García Castro (50%)
Recursos	José Luis Ramírez Macedonio
Curación de datos	José Luis Ramírez Macedonio
Escritura - Preparación del borrador original	José Luis Ramírez Macedonio
Escritura - Revisión y edición	Neftalí García Castro
Visualización	José Luis Ramírez Macedonio
Supervisión	José Luis Ramírez Macedonio (50%) Neftalí García Castro (50%)
Administración de Proyectos	José Luis Ramírez Macedonio
Adquisición de fondos	Neftalí García Castro