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Bucaramanga, between mining overexploitation or water preservation in the Santurbán moorland

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Abstract: The purpose of this article is to expose the concerns raised by the citizens of Bucaramanga, the capital city of the department of Santander, located in the north-east of Colombia, as a territory that is torn between the need to preserve the water coming from the Santurbán páramo and the importance of preserving the mining tradition in its nearby municipalities. To achieve this objective, semi-structured interviews were conducted with some of the inhabitants of the rural area of the Santurbán páramo and a review of the periodical publications that circulated in 2010 and 2011 was carried out. This information was cross-referenced with some theoretical texts to understand the impact of environmental issues. One of the conclusions of this article is the evident need to conserve the Santurbán páramo as a water source for Bucaramanga and its metropolitan area, which has led to the mobilization of a large part of the citizenry, despite the needs of other populations that derive their livelihoods from small-scale mining.

Key words: collective action; environmental conflicts; wasteland ecosystems; mining; water resources

1 Introduction

The Santurbán páramo is a space of encounters and misunderstandings, of passions confused with ideologies and frictions fuelled by differences, but in the end it is a territory that demonstrates the necessity of every human being: survival. In recent years, the Santurbán páramo has come to public attention due to the interest it has aroused among the inhabitants of Bucaramanga, a city located 72 kilometres from this fortress of water and gold, which until a few years ago was not evident in the daily lives of the people of Santander. The purpose of this article is to expose the dilemma that exists in Bucaramanga, capital city of the department of Santander, located in the north-east of Colombia, as a territory that is torn between the need to preserve the water that comes from the Santurbán páramo and the conservation of the mining tradition in the province of Soto Norte as an aquifer reserve and a source of gold in the adjacent municipalities of Vetas and California.

These needs have led to a constant tension between disparate communities. A globalizing proposal that would change the rhythm of the lives of the inhabitants of the province of Soto Norte, especially in the mining community of the municipalities of Vetas and California, leads to a reformulation of the projection of how to live based on two riches: water and gold. The over-information about new open-pit mining projects and the discovery that Bucaramanga is a city with a high probability of water scarcity make people join groups of resistance, protest and collective action. During 2011 thousands of people march in the city of Bucaramanga against the open-pit mega-mining project proposed by the

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multinational Greystar Resources Ltd. in the territory better known as the Santurbán páramo. The massive citizen participation captures the attention of the media, which are expectant about the mobilizations and protests in a climate of social unrest provoked by the student protests against the reform of *Law 30 of 19921* , the peasant strikes and the spring of the indignant all over the world. What at one moment is taken as a contribution of opinion and respect for the environment, soon escalates into a socio-environmental conflict between the inhabitants of the municipalities of Soto Norte, who are supposedly going to benefit from the macro-project, and the inhabitants of the Metropolitan Area of Bucaramanga in opposition to the mega-mining project.

The conflict exposed in the media reveals the consequences of a continuous process of clientelist political agendas, institutional failures and a degradation of the State's presence due to violence and corruption. This article aims to interpret the conflict that has been visible since 2010 in the Santurbán páramo, as a consequence of the institutional neglect that has led to the overexploitation of water and gold resources in this area. The consequences are evident in the lack of job opportunities for the inhabitants of Vetas and California and in the increasingly close water shortage for the city of Bucaramanga and other areas of the departments of Santander and Norte de Santander. As an immediate remedy to this problem, polarization, social mobilization and the attitude of the people affected - or benefited, depending on the crucible through which one looks at it - in the face of the proposals of the multinational mining companies appear. These proposals have also made it possible to visualize collective action as a response to environmental conflicts, as well as to the relationship between human beings and the places they inhabit, especially when warnings of environmental degradation and global warming affect society as a whole.

The open-pit mega-mining proposal in the Santurbán páramo has affected the social dynamics and quality of life of the urban and rural population in the region. Therefore, it is necessary to first understand the dimension of the conflict, the importance of the páramo and mining in the lives of the populations. For this purpose, we have consulted the press, analyzed academic documents and, especially, conducted semi-structured interviews with inhabitants of the mining area and the city of Bucaramanga, in order to understand their position as actors in the overexploitation of gold resources or as consumers of the most precious liquid: water. In this sense, different actors that influence the problems addressed are taken into account. The emergence, advancement, and permanence of social movements with the capacity to interpret the problems from the urban logic to respond to them according to their citizen interests and the existence of a critical view of the socio-environmental mobilizations by the traditional mining population, the inhabitants of the municipalities of Vetas and California, who may have similar concerns with the population of Bucaramanga, but who also have disagreements due to the existence of unattended needs, lead to more diverse and larger concerns.

In view of the fact that this conflict significantly affects the population of Bumangua in particular, and the Colombian population in general, being able to mobilize more than one hundred thousand people for the same purpose, the responsibility of the academy entails the obligation to study the problem with its very diverse analysis edges. This, because the works that tend to contribute to the knowledge of this conflict, has an important influence on the future, the social development and the natural environment of interest of Santurbán and the world.

This article is divided into three sections presenting the situation of the Santurbán páramo in three dimensions: mineral wealth, water abundance, and the conflicts arising from the arrival of multinational mining companies. The first part, entitled "The Santurbán páramo: the 'infinite' mountain of gold", provides a historical overview of the region's mining tradition from pre-Hispanic times to the present. The second part focuses on the region's water, flora, and fauna wealth and the potential ecological consequences of industrial mining. The third section describes the social movements that arose

from the proposal for economic development following the entry of multinational mining companies into the region (Note 2).

2 The Santurbán moor: the "infinite" mountain of gold

According to Collin, "overexploitation is the unplanned exploitation of resources" (1989, p. 50). Since pre-Hispanic times in the municipalities of Vetas and California in the department of Santander, gold overexploitation has been practiced. The precious mineral has been extracted from the bowels of the Santurbán páramo by indigenous people, conquerors, peasants, artisanal miners and more recently, by large multinational companies. Gold has been extracted for ritual purposes, as a tax to the Spanish Crown, as currency, as a means of subsistence and finally, as a mineral increasingly in demand to be incorporated into cell phones, computers and different technological equipment. Without fear of being mistaken, the miners of Vetas and California consider the Santurbán páramo to be an "infinite" zone of gold. This auriferous fortune, which for centuries has been seen under economic interests, has allowed the flourishing of undercut and river mining as the two main rudimentary methods of land exploitation (Poveda, 2016); artisanal mining transcends and becomes the main means of subsistence for the inhabitants of the páramo. More than four hundred years of mining tradition represent the culture of the Vetano and Californian peasantry -the two main gold mining towns in Santurbán-.

In Santurbán, artisanal mining is the most prevalent form of mining in the life and culture of the people. It is a low-tech process that uses tread mills [Note 3]; gold extraction is very low compared to multinational companies. According to the villagers, the depth of the open pits to extract gold from the paramo mountains does not reach more than one hundred meters deep after approximately four hundred and fifty years of artisanal mining (Group Interview, 2017). Although miners consider a low exploitation of a non-renewable natural resource, the lack of planning could lead to call this activity an overexploitation, especially if one takes into account the number of years that the páramo has been torn to obtain the precious metal.

Nevertheless, the prevailing Catholic legacy in the area has led to the belief that nature is at the service of man, but at the same time, man must protect it (John Paul II, 1991, p. 863). The inhabitants of Vetas and California affirm that natural resources belong to the people that make up the territory. Therefore, everyone has the right to live from gold, just as everyone has the duty to take care of the mountains that provide it; it is the children of these lands who have a natural right to exploit it as well as the duty to take care of it:

That has been a culture, it is the miner's culture, that is its idiosyncrasy, that cannot be changed, that is like when in ancient times there were normal mines and gold flowed out of their mines, well everyone wanted to go there to see how they could suddenly benefit from their wealth (Key Actor 3, 2017).

It can be observed that, although the inhabitants of the territory are respectful of the private property of their neighbors, the mountain represents an asset of nature that must be shared. The need for subsistence configures practices of solidarity, companionship [Note 4] and fraternity that are strengthened from generation to generation, creating roots not only with the territory, but also with the social, cultural and anthropological dynamics that are woven there. However, this need for subsistence has slowly transformed into the search for progress with its "myths" as Elizalde (2008) calls them:

Myth 1: Growth is the best way to combat poverty because it allows for better distribution.

Myth 2: Export growth is good for all economies.

Myth 3: Economic growth, called modernization, is the only way to improve the quality of life.

Myth 4: Needs are many, unlimited, changing and always growing (Elizalde, 2008, p. 54).

The theme of development and progress emerges as a key concept that justifies the exploitation of nature by multinational companies, which understand minerals as capitalizable resources. The transnational companies that come to

Latin American countries promise with their mining projects to increase the national economy while contributing to local and global development. In 1990, the Economic Commission for Latin America and the Caribbean (ECLAC) produced a report entitled "The Environmental Challenge of Development in Latin America" in which it concluded that the alterations caused to the environment are inherent to the development process, i.e., that for development to take place in the world it is necessary to artificially modify the natural state of ecosystems. However, the socioeconomic and political systems of Latin America and the Caribbean do not have regulatory mechanisms to ensure that intervention on ecosystems is environmentally sustainable (ECLAC, 1990, p.18).

Transnational corporations arrive in Latin American territories to offer the necessary technology, promising to leave ecosystems in the same condition as they were found, based on the idea of "sustainable development". "A natural system is sustainable to the extent that it is able to maintain the vitality of its components and functioning processes constant over time" (ECLAC, 1990, p. 11). However, "environmental sustainability is lost when 'ecological deficits' occur. This occurs when society's consumption demands cause 'losses' and 'leaks' that exceed the 'carrying capacity' of an ecosystem" (ECLAC, 1990, p. 13). The restoration processes proposed by mining companies can rarely match the natural conditions in which ecosystems existed before large-scale mining projects, since exploitation exceeds the ecosystem's capacity for self-sustenance, making them difficult to consider sustainable projects.

The development they guarantee is blurred when the landscape, water, air, and biodiversity—in addition to the economy, culture, and community life—undergo significant transformations, affecting the citizens of a large part of the department of Santander. As Gian Delgado states, "We need, at best, a quarter of the planet's extra land to maintain the rates of consumption and waste of the early 21st century" (Delgado, 2012, p. 64).

Vetas and California are the two main gold-mining towns located in the Santurbán páramo. Vetas was settled on July 16, 1555, and its proximity to the páramo makes it the highest municipality in Colombia at 3,350 meters above sea level. The town is nestled between two mountains. To reach this location by intercity transportation, you must go to the Flota Cáchira bus station, located in downtown Bucaramanga. From there, a bus departs for Vetas at six in the morning and takes approximately three hours. The trip is currently a one-way trip. The fastest way is via the road that connects Bucaramanga with Cúcuta. The first stop is in the district of Berlín, part of the municipality of Tona, where the icy atmosphere pervades the entire body and the vendors selling panela water, red wine, and almojábanas are a consolation for enduring the inclement weather. There, the landscape is distinct. Onion crops can be seen on either side. The road continues toward Cúcuta, but the bus soon detours, leaving the paved highway behind. The driver's expertise is evident in his intimate knowledge of a rocky and sandy path that is sometimes impossible to navigate. The sharp rocks, the unstable terrain, and the thin line that must be shared by trucks coming and going are a testament to the path that leads to a municipality that refuses to disappear amidst the mountains, the cold, and the lack of progress in the various aspects of its daily life.

Very soon, a small town with a trapezoidal expansion can be seen among the mountains. The town's configuration indicates that it grows at its own pace, in a struggle between what the mountain gives up and what humans gain. In the center of the municipality are the most striking homes, the mayor's offices, the school, and sitting in the park are the curious: some are miners, others are simply passing the time. The municipality of Vetas has one of the highest unemployment rates; the unemployment resulting from environmental legislation and the Páramos Law, which strictly prohibits all activity, has led to the scandalous figure of 80% unemployment in a territory with barely 2,000 inhabitants, even though 76% of the municipality lies within the line delimiting the territory as páramos (Morales, 2018).

The situation in the municipality of California is not very different. This is a municipality created between the azogue [Note 6] and galafardeo [Note 7] processes, tasks of which its inhabitants are proud, as these labors have allowed them to

be who they are and what they will continue to do for generations. For four centuries, life and the way of life in this town have been connected by the presence of gold, a culture threatened and violated by the socio-environmental conflict that took shape in 2011 due to the intentions to carry out industrial mining projects that would end their artisanal tradition, on which they have survived to the present.

Despite artisanal mining, interest in further gold exploration arose with the presentation of the Angosturas project in 2011 by the Canadian multinational Greystar Resources Ltd. The multinational's proposal is to create an open-pit mine, from which precious metals such as gold and silver will be extracted from the mountains on a large scale. The arrival of multinationals in the province of Soto Norte represents a drastic change for its residents, who feel besieged by industrial mining projects and by the disapproval of urban environmentalists regarding any type of mining in the territory, having traditionally been artisanal miners. This project's proposal generates disapproval among the population of the Bucaramanga Metropolitan Area. This project creates a dilemma between two communities: one seeking to preserve water, the other needing gold to survive. In Bucaramanga, environmental groups, unions, and people sensitive to ecological issues believe that a project of this magnitude jeopardizes water, the paramos ecosystem, and the future of the Santander communities.

While investment in extractive industries has shown gradual growth since the 1990s in Latin America and several countries in the region, it represents a significant contribution to the increase in Gross Domestic Product (GDP) and promises better working and living conditions for their populations, at the same time, this growth generates socio-environmental conflicts. In Colombia, gold-producing departments such as Antioquia, Chocó, Nariño, Cauca, Tolima, Caldas, Santander, and Norte de Santander present multidimensional problems exacerbated by the presence of transnational mega-mining companies in territories historically abandoned by the State. The impact affects the economic, social, and cultural life of indigenous, rural, and urban communities. Since the mid-2000s, extractivism and the resulting socio-environmental conflicts, with their various facets and divergences from one territory to another, have become part of the political landscape and public debate in Colombia.

On the one hand, a forgotten population, which before the conflict caused by industrial mining had only the presence of its inhabitants, is being dragged into a new reality, in which foreign actors are increasingly present in the territory for a variety of reasons, generating mistrust, uncertainty, and fear. On the other hand, the ongoing tension between environmental activism and transnational corporations generates conflicts not only of an environmental nature but also of a social nature.

3 The Santurbán moorland: water resources are running out

Santurbán is a Colombian páramo covering 150,000 hectares. It is comprised of 78 lagoons, more than 400 freshwater springs, five rivers, 457 plant species, 201 bird species, and 58 mammal species (Barriga, 2015). The páramo has an unusual biological formation. The mountains are characterized by fissures, so the water resources are not only found in the lagoons but throughout the entire ecosystem within the mountains, as water travels through the various cavities, forming streams and later rivers that supply a large portion of the municipalities in the departments of Santander and Norte de Santander. When tunnels are opened to extract gold, it is very common to find water currents that often make the mining process difficult or impossible. Various studies conducted by academics in natural sciences, including biologists, geologists, and engineers, agree that both small- and large-scale mining can cause significant environmental damage, primarily water pollution, loss of biodiversity, and landscape transformation.

The difference in the size of large-scale and small-scale mining projects is reflected in their environmental consequences. The Angosturas project, proposed by the Canadian company Greystar Resources Ltd. since 2009 and formally presented in 2011, aimed to extract gold located near the Angosturas ravine, in the municipality of California,

through open-pit mining with a single pit over fifteen years, with an extraction of 70,000 tons per day for the heap leaching process and 5,200 tons per day for the flotation process; that is, over the fifteen years of the project's life, approximately 330.6 million tons of ore and 744.8 million tons of waste material would be removed (Minesa, 2019, p. 11). To achieve this, the project required the construction of two leaching piles in the Angosturas and Páez sectors, the use of heavy machinery to destroy the topsoil to expose the soil, the use of explosives to loosen the earth, and the excavation of a 200-meter-deep pit. This required a sodium cyanide concentration of 500 mg/liter of water, using 250,000 liters of water per hour (Zárate, 2011).

According to Gonzalo Peña, a drinking water and wastewater expert and environmental activist in Bucaramanga, this process releases sixty-five grams of arsenic, a potentially poisonous chemical element, for every gram of gold; the process also releases arsenopyrite, a chemical component composed of arsenic, iron, sulfur, and other minerals (Santurbán Committee, 2015). Likewise, Julio Fierro, a geologist at the National University of Colombia, argues that arsenic is readily available in acidic environments (Institute for Ecological Studies of the Third World, 2015). In Santurbán, "the geological and geochemical conditions exist for the release of arsenic", provided the material in which it is found is removed from its natural state. This demonstrates that the environmental risk of mining in Santurbán lies not only in the contamination of water sources, but also in the air pollution that carries poisonous chemical compounds that endanger biodiversity and human life.

In public interviews, the directors of Greystar Resources Ltd. speak of their commitment to the environmental restoration of the páramo ecosystem. Therefore, they currently claim to have a nursery with 20,000 oak trees and 30,000 more in germination phase. They also affirm that they have frailejones crops, which they planned to begin planting during the mine's operation, adding to this process five years after the end of the exploitation phase. However, this proposal for the environmental movement does not seem sufficient, as the damage is not only caused by the transformation of the landscape and the felling of trees, but also by the transformation of the soils, which affects not only the surface area affected but also the entire subsoil that makes up the páramo ecosystem, in addition to the climate of both the páramo and the municipalities it influences. Huntington (2001) states that climate ranks first among the factors that determine the existence of populations. Its importance lies in the fact that it directly influences the quantity and quality of food, plays a crucial role in limiting the distribution and virulence of the parasites that cause most diseases, and through its effect on occupations, lifestyles and human habits, constitutes one of the main determinants of culture.

Residents of the municipalities of Vetas and California, who maintain a constant connection with the páramo and experience firsthand the transformations it has wrought, share various experiences that have impacted their perceptions of large-scale mining. A group of male miners who meet to discuss the environmental effects of the exploration phase in which they once participated, share:

There were people who worked on the drilling. The water disappeared due to contamination from grease, polymers, and chemicals we work with, which is a major environmental pollution, and the company doesn't see it [...] The residents of some hamlets are drinking that water [...] In addition, they now have to go and fetch water from the other hill, about a thousand or two thousand meters away, through a hose to be able to sustain the water. Those were the effects, just from the drilling we did there (Group Interview, 2017).

Likewise, a woman from California, who develops ecotourism plans in the páramo as an alternative economic activity to mining, narrates her experience during an ecological outing with a research group from the Universidad Industrial de Santander (UIS):

When Eco Oro did some drilling near the Páez creek, hot waters came up, they were called thermal waters, but it was

a water that turned out to be hot. I did not know about the existence of these waters. Two months ago a research group from the Universidad Industrial de Santander went with me, because I am working on the subject of environmental awareness and ecological tourism; the group hired me as a tour operator to take them on the tour, with this group I could enter the company's facilities because that is a private area [...]. There I realized about the hot springs. On that tour there were several professors who were experts in hydrology and geology. I told them: "Explain this phenomenon to me because for the company this is not bad, but for me, this is terrible. If a drilling is done and hot waters that are deep in the ground are touched and they surface, we are causing damage to all the soil layers downwards. Tenacious. I can't even imagine how far a borehole like that could have gone for a hot water to be coming to the surface." A teacher informed me that the soil and the thermal floors have certain conditions, and that obviously if the soil is perforated, the tectonic layers are opened and that means that whatever is at the bottom, if it is not given the proper treatment, then obviously, nature is wise, it makes what has to come out and that water is left there, hot. The community does not know that because no one can enter that sector (Key Actor 3, 2017).

The experience lived by this woman during the ecotourist guide not only shows the environmental consequences of the exploratory stage of large-scale mining, but also the little knowledge that the communities of the municipalities surrounding the mining project may have. However, ecologist and environmental groups, unions, and the citizens of Bucaramanga are concerned about the entry of multinational mining companies, and although they are concerned about the problem of artisanal mining, their main interest is the conservation and preservation of the Santurbán páramo as a water reservoir for future generations.

Bucaramanga, as mentioned above, is the capital of the department of Santander and is located seventy-two kilometers from the Santurbán páramo. Its current population reaches 528,855 inhabitants (Caracol Radio Bucaramanga, 2019), and from the Santurbán páramo and its tributaries, the Acueducto Metropolitano de Bucaramanga S.A. E.S.P. supplies water to more than 282,236 subscribers (Acueducto Metropolitano de Bucaramanga S.A. E.S.P., 2018, p.3).

However, until a few years ago there was no such concern among the inhabitants of the region, much less among the inhabitants of the Metropolitan Area of Bucaramanga. However, the proposal presented by Greystar Resources Ltd. to open an open-pit mine raises awareness of the need to preserve the Santurbán páramo in view of the possible decrease in the flow of its tributaries and the probable appearance of traces of cyanide and the acidification of water for human consumption. Social networks and the media report about the possible pulmonary affections that may occur in the population after drilling in search of the precious metal, information that is replicated by the in all the places where mining is practiced, pollution appears, that is, particulate material that can be consumed by people in the water and which generates serious pulmonary problems, mainly cancer. In addition to visual contamination, noise pollution and respiratory problems derived from dynamite explosions, the movement of mass and earth will occur, as well as the appearance of chemical elements such as arsenic in the environment. If mining takes place in Santurbán, the water will be contaminated and will be substantially reduced for human consumption in Bucaramanga; the air will be poisoned, it will be poisoned [...] When the dynamite starts to sound, because they are going to use it, when contaminating particles start to fly, because they are going to fly, where are they going to get to? The first impact will be around the mining area, but from there it will go to Bucaramanga, the metropolitan area and surely other municipalities will also be affected. The concern is because it will affect the condition and quality of life of all the people of Bucaramanga. Not to mention that the water is not for us, the water is not for my house, nor for yours, the water is for Bucaramanga and the metropolitan area, that is to say, one million two hundred thousand inhabitants. The water is for the people of Cúcuta and there are forty more municipalities that depend on the Santurbán páramo (Actor Clave 6, 2017).

In this way, among the concern for health problems, for the possible disappearance of fauna and flora, for the next shortage of water in the department of Santander and with the slogan "Water yes, gold no", the largest environmental movement in the city of Bucaramanga and its metropolitan area was born.

4 Environmental movements in the face of the development proposed by multinational mining companies

The massive social mobilizations that took place in Colombia and the world in 2011 to defend free education, digital rights, and environmental quality, have interested researchers and professionals in the human sciences. The forms and discourses of these collective actions, absorbed by a new "neoliberal multiculturalism" (Castro-Gómez, 2015), in which social networks and virtuality set the tone for social participation, modulate both social and political needs and opportunities.

Those demonstrations, product of the consolidation of an organized collective will based on diversity, arise in response to problems that threaten people's rights (Santana, 2005), tend to be reactive and are developed with the purpose of being a pressure point for the State. Melucci (2010) states that collective actions can be identified because they are intended to bring people together to socially position a proposal and a political stance in the face of a problem. However, they do not require the existence of a social movement behind them; if this occurs, it should be read as a result, but not as a requirement per se. These actions are the means by which demands are promoted that do not affect only one social group, but that challenge society as a whole because they include material or immaterial goods that correspond to the future of the population in general.

In this regard, Butler (2017) states that only when individuals understand the responsibility that falls on themselves, it is possible to ensure a livable life for themselves and for everyone who is affected by their actions -such as future generations-; this social process is called "consolidation of solidarities":

[...] the more the individual complies with this demand for "responsibility" with respect to his personal autonomy, the more isolated he is from the social point of view and the more aware he is of his precariousness; and the more social support structures disappear for "economic" reasons, the more isolated he feels in the face of the anguish and "moral failure" that this situation provokes in him. All this translates into a marked increase in anguish about the future, both that of the person himself and that of those under his care; it imposes a framework of individual responsibility on the one who suffers such anguish; and it redefines responsibility in terms of the demand imposed on the individual as an entrepreneur of himself, precisely when social conditions make such a dubious inclination impossible (Butler 2017, pp. 22-23).

In today's world, individualism determines social relations and the concerns that promote protests, the future is positioned as the center of diverse efforts to defend what no longer corresponds to an individual but to a group of individuals. Augé (2012) explains the difference between the future and the prospect. The future refers to the life that is being lived individually; when individual futures are united in solidarity for what corresponds to non-sectorized issues, but to society in general (such as the environment or peace), the future is configured. The prospect gives meaning to the future, because it raises hopes, fears, and depends on other people. According to this premise, environmental protection is configured as the banner of a new social movement imposed worldwide and permeating different social spheres since the second half of the twentieth century. At a time in history when development is reaching unsustainable levels for the conservation of natural resources, the environmental movement is becoming stronger as an opportunity to bring together citizens of all social classes, races, ethnicities, genders, professions, religions and political preferences in a common objective.

For the environmental movement, although the accelerated industrial, scientific and technological development seeks

advances for humanity, it is the uncontrolled use of natural resources and the excessive impact on populations that make society itself find in developmental activities a threat to the survival of human beings and planet Earth. The groups defending the environment mobilize and carry out pedagogical exercises among the citizens. This pedagogy is usually carried out through activities such as forums, meetings and training; likewise, the influence of the media on citizens is an opportunity to promote civil awareness in the face of specific threats to a natural space. According to sociologist Melucci (2010), the fact of using alternative and creative communicative strategies invites to question the theory of social movements, since it is no longer a class issue that wants to vindicate the rights of a sector of society, but a human reason that seeks to safeguard the welfare of the environment for the survival of society in general, regardless of the political, ideological or economic spectrum.

In this sense, the planet is no longer a physical space but a unified social space (Melucci, 2010, p. 149). The future of society as a general concern is what leads the environmental to focus its attention beyond political and economic issues and to challenge so many people. However, the fact that a movement advocates for human welfare does not mean that its slogans represent all of humanity.

Although it has been said that environmental mobilizations seek to defend life and the quality of the inhabited natural environment, the territories directly affected by projects such as extractivism have a complex web of cultural, economic and social processes that mark the way people relate to their living space, as well as a large number of deficiencies resulting from state neglect, which also shape the perception of the arrival of companies that promise better economic possibilities in the communities. In Latin America, since the 1990s there has been an opening for investment by transnational companies in order to promote mining and energy development, partly due to the high profitability and the need to pay off foreign debt with organizations such as the World Bank, therefore, socio-environmental conflicts have been slowly cemented. In Colombia, since 2010 they have reached their peak, inciting social mobilization.

For example, in the defense of the Santurbán páramo, people consider that their actions and discourse are legitimate because what they defend belongs to them, and because any decision on the use and exploitation of the territory affects them. Therefore, socio-environmental conflicts are an imminent reality in contexts such as this: environmentalists, peasant population, State and transnational mining companies have arguments to say that natural resources belong to them, either because they have legal ownership over them, because they were born and lived there, or because they simply understand nature as an asset of humanity.

Economic development in Latin America is a vital issue in the construction of dialogue between the conflicts and the explanation to them generated by the friction at junctures such as the struggle for the preservation of the environment and the search for "sustainable development". This discourse is widely used by governments that seek to legitimize the option of extractivism in their countries in order to advance economic growth and the quality of life of their populations.

The ideas of consumption and exploitation influence the transformation of the values attributed to nature; consequently, water, minerals and the landscape acquire not only vital but also commercial importance, which is why one of the concerns of the environmental movement is that, if a large-scale extractive project is approved, access to water will be reduced because, as it becomes scarce, its price will increase. The same is true for the peasant population, which is affected by the imposition of the same rules for large and small-scale miners, forcing them to abandon their traditional activity and depend on industrial mining for the duration of the projects. In the case of the Santurbán páramo, the urban citizens of the Metropolitan Area of Bucaramanga also have a historical relationship with the water wealth that comes from the mountains; the transnational companies that are established in the territory represent different interests of a more economic nature. The governmental apparatus plays a role of intermittent presence; it has the duty to represent the interests

of citizens, and in this sense, it also establishes a differentiated position with respect to mining in Santurbán.

Santurbán is a special geographic space in the world's mining debates. The fact that it is a páramo rich in gold and water, with a significant human presence, gives a particular character to the disputes over how to understand the relationship between humans and nature and consequently how to use and/or protect it. In 2011, when the company Greystar Resources Ltd. intends to extract open-pit gold in Santurbán, the conflicts come to light. The relationship between gold and water is vital for the survival of the communities in Santurbán. Gold is seen as a means of economic subsistence and the material basis for personal relationships. Artisanal mines, in general terms, are located on the banks of some streams because they need water for their work. The exploitation of gold in these mines produces waste that is thrown into the river; in the course of this water source, other people (mostly women) collect the discarded gold particles. Water in this exercise becomes the conductor of the precious mineral, which is why it acquires a transcendental value for the economic subsistence of the communities.

Large-scale extractivism arrived in the territory in the mid-1990s through companies such as Greystar Resources Ltd., Aux Gold and Anglogold Ashanti S.A. The traditional mining population was seduced by a new, promising and innovative extractive model. The detachment from tradition is beginning to occur for some, who offer their labor force to explore the territory and be part of an extractivist economy that promises economic growth and development. It is not unusual that in municipalities such as Vetas and California, with a high degree of institutional abandonment, large-scale extractivism represents an opportunity.

However, gold mining does not ensure the wealth of those who practice it. The populations of Chocó, Antioquia and Santander that live from extractivism in Colombia are immersed in what is called "the curse of gold", a paradox that reflects that the municipalities with mining wealth are submerged in circles of poverty that seem to never end (Suárez, 2017). There is no main economic activity other than mining in Vetas and California so far. Agriculture, small species breeding, ecotourism, handicrafts, or small businesses such as stores, are alternative activities that develop hand in hand with small-scale extractivism. The inhabitants of this municipality say that the local economy does not flow the same when there is no mining:

[...] when there is mining you see a lot of progress, you see money for the social part. When there is no mining, here you see like poverty so to speak, because one notices when all the companies were working, well you could see that, in commerce, everyone earned, even the housewives, because directly or indirectly one earns from mining (Key Actor 12, 2018).

Although gold is still today the basis of the economy in the mining towns of Santurbán, Bucaramanga's history is also linked to the gold mining tradition. According to Professor Armando Martínez Garnica, the city exists thanks to gold mining in the Río de Oro and the Santurbán veins:

The disdain for the mining activity is a paradox of the people of Bumangues and the Barramejos, since their stable settlements are a consequence of that tradition [...] In any other country without our strange political history, such as Australia or Chile, the discovery of a mountain of gold and silver is news that mobilizes all social energies, immigrations and social wealth. In Santander, nobody dared to denounce the political fallacy by arguing decisively: "Gold, and also more water". It was enough to change the conjunction and start to technically study the mining projects, abandoning the moral disqualification of the companies (Martínez, 2013, p. 25).

Before independence, Bucaramanga, which currently has gold activity as a secondary value, was a Real de Minas whose function was to exercise government tasks and apply measures conducive to increasing metal production (Ortega, 1999). Currently, there are vestiges of a gold mining tradition, such as the names of some neighborhoods and the

persistence of jewelry businesses in some areas of the city. However, for the population of the urban area, especially for those who defend the water of the Santurbán páramo, gold does not fulfill any vital function; human life does not depend on it, therefore, its extraction does not compensate for the environmental damage caused by removing it from its natural state. A large part of the urban citizenry understands this representation to support collective actions focused on defending the páramo as a "common" natural space, responsible for providing water and maintaining the environmental balance of the Metropolitan Area of Bucaramanga.

5 Conclusions

The defense of mining by the rural population is produced in part by the tension with the urban population, which, during social mobilization activities in defense of the Santurbán páramo in 2011, emphasizes the rejection of gold mining because of the damage it causes to the páramo and water sources. The environmental movement was born in the urban area motivated by the need to defend the water and ecological wealth of Santurbán. Given that the main water sources that supply the Metropolitan Area of Bucaramanga come from the páramo and that large-scale extractive projects could affect water quality, people of different socioeconomic levels, education, political party, religion, etc., unite to confront the threat of extractivism.

The theory of scarce resources seems insufficient to understand conflicts. As Orellana states, "scarcity alludes to quantitative aspects, to formal and manifest reasons for conflicts, but does not delve into invisible motivations, into perceptions" (Orellana, 1999, p. 90). In the case of Santurbán, conflicts go beyond the issue of scarcity. On the contrary, in the páramo, resources are abundant, and this leads to the formation of conflicts that address not only their quantity and distribution, but also the way of understanding the human relationship with nature.

In this case, what can be identified is a struggle between three ways of perceiving nature in the construction of the territory. This denotes conflicts in which one or the other has built a different relationship with the territory, and in this sense they defend different uses of it. Some advocate resource extraction, others refuse to risk the ecological potential of the páramo in favor of gold mining, and others seek a consensus between conservation and extraction.

Article 79 of the *Political Constitution* of Colombia mentions the right of all persons to enjoy a healthy environment and the duty of the State to guarantee the participation of the community in decisions that may affect it, arguing that it is necessary to "protect the diversity and integrity of the environment, conserve areas of special ecological importance, and promote education to achieve these ends, conserve areas of special ecological importance and promote education for the achievement of these purposes", on the other hand, Article 80 states that the State is in charge of planning the management and use of natural resources, in order to ensure their sustainable development, conservation, restoration or replacement (Palomino López, 2014, p. 4). However, it is also considered that work is a fundamental right as argued in Article 25 of the *Political Constitution* of Colombia. However, the discussion is posed between water conservation or the need to exploit the Santurbán gold mines as a means of livelihood for the families living in the towns of Vetas and California.

Although the inhabitants of the Santurbán páramo defend the natural habitat, they also recognize the lack of development and progress in their municipalities. This is evidenced by housing without basic public services, labor exploitation and a deficit in schooling, which transcends from a personal level to society, allowing the emergence of a culture of poverty, which in these places is characterized by the intention to extract resources from the land, without regard for the environmental and social consequences, and deepens the poverty and misery within society.

The government's favoritism toward multinational mining companies through tax exemptions also contributes to the disappearance of endemic species of flora and fauna from the ecosystem, in addition to social and economic problems such as the disappearance or lack of interest in the agricultural industry, poverty, and prostitution, among other situations visible

in mining areas. Pollution is also a major problem:

There is a report from 2010 that shows that fifty-three chemical elements of the periodic table appeared due to the drilling of the land in Santurbán, so it is a population that is totally and absolutely threatened from every angle (Key Actor 6, 2017).

As a result of the development of illegal mining activity, the municipalities of California and Vetas are experiencing social, economic, and environmental problems, generating incalculable liabilities or losses, not only for the regions where the mining sites are located, but also affecting the national level, which have not been adequately assessed.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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Note:

[1] Protests against the reform of Law 30 of 1992 promote a massive university student participation in 2011. Students, supported by university managers and administrative managers, protest the reforms that seek to create the figure of profit universities in Colombia. This autonomous initiative led by the Broad National Table of Students (MAN) represents the most important and nourished mobilization of the last decades (Acevedo and Correa, 2018).

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[3] The tamping mills crush the material by pounding it, allowing the extraction of metallic ores.

[4] The experience of sharing common goods as a tool to strengthen fraternity, but also as a factor of survival, is a situation studied by social theory since Karl Marx's work on the *Firewood Thieves* (Marx, 1983, p. 204).

[5] There is also the option of taking the unpaved road from northern Bucaramanga, which crosses the municipalities of Matanza, Suratá, and California to reach Vetas. This trip requires more than four hours due to the terrain.

[6] The quicksilver mining technique refers to the application of mercury to extract gold using artisanal methods.

[7] Galafardeo is an illegal mining practice in which groups of eight to twelve people, using rudimentary tools (picks and shovels), remove rocks from previously explored and exploited pits, which, in some cases, still contain abundant gold. This material is crushed in artisanal plants to extract a few grams of gold. This mining tradition is practiced daily in the department of Santander despite its illegality (Celedón, 2014).