



Right to water: the situation of the Cuenca canton and the popular consultation

Derecho al agua: la situación del cantón Cuenca y la consulta popular

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ABSTRACT

Popular consultation in the basin stands out as a crucial pillar for safeguarding the right to water and preserving local ecosystems. This process of citizen participation not only constitutes an essential democratic exercise, but also emerges as a powerful tool to empower the community in crucial decisions that affect their access to water resources. By providing citizens with a voice, the community becomes an active advocate for their collective interests, advocating for sustainable access to water and contributing to a future that balances human needs with the responsible preservation of natural resources. The selected research methodology is qualitative, allowing an exhaustive interpretative analysis of diverse expert perspectives on the contamination of water sources by mining exploitation in the Canton of Cuenca. It seeks to deepen in theories, approaches and contributions, identifying nuances, contexts and significant

connections. The objective of the article is to analyze the results of the popular consultation from legal and environmental perspectives, evaluating its impact on the protection of the right to water and nature in Ecuador. This research will contribute to a more complete and detailed understanding of the problem, enriching the quality and breadth of the analysis.

RESUMEN

La consulta popular en Cuenca se destaca como un pilar crucial para resguardar el derecho al agua y preservar los ecosistemas locales. Este proceso de participación ciudadana no solo constituye un ejercicio democrático esencial, sino que también emerge como una poderosa herramienta para empoderar a la comunidad en decisiones cruciales que afectan su acceso al recurso hídrico. Al proporcionar voz a los ciudadanos, la comunidad se convierte en defensora activa de sus intereses colectivos, abogando por el acceso sostenible al agua y a la contribución a un futuro que equilibra las necesidades humanas con la preservación responsable de los recursos naturales. La metodología de investigación seleccionada es cualitativa, permitiendo un análisis interpretativo exhaustivo de diversas perspectivas de expertos en la contaminación de las fuentes hídricas por la explotación minera en el Cantón de Cuenca. Se busca profundizar en teorías, enfoques y contribuciones, identificando matices, contextos y conexiones significativas. El objetivo del artículo es analizar los resultados de la consulta popular desde perspectivas jurídicas y ambientales, evaluando su impacto en la protección del derecho al agua y la naturaleza en Ecuador. Esta investigación contribuirá a una comprensión más completa y detallada de la problemática, enriqueciendo la calidad y amplitud del análisis.

Keywords / Palabras clave

popular consultation, contamination, right to water, environment

consulta popular, contaminación, derecho al agua, medio ambiente

Introduction

Access to water is an inalienable fundamental right and essential for the development of life. Despite this universal affirmation, the right to water faces global threats, especially from pollution and mining

activity. A clear example is the situation in the canton of Cuenca, where the community has mobilized through a popular consultation as a mechanism for citizen participation to safeguard this vital resource and local ecosystems.

This analysis becomes crucial due to the pressure exerted by certain mining companies that seek to weaken this democratic exercise through legal actions and political pressure. It raises a question about the intersection between the individual rights of companies and the collective protection of the right to water, the right to live in a healthy environment and the rights of nature.

The main water sources in the canton of Cuenca are the four rivers that flow through it: the Tomebamba, the Tarqui, the Yanuncay and the Machángara. These rivers are fed by the waters originating in Cajas National Park, where more than 4,000 lakes are interconnected. According to Doumet Chilán et al.(2023), this park, characterized by its outstanding biodiversity, plays a crucial role as a water recharge area for the city of Cuenca and the province of Azuay. However, the integrity of these water sources faces threats from mining projects.

Cajas National Park has been declared a core zone of the Biosphere Reserve by UNESCO because of its rich biodiversity. The park's water resources and fragile ecosystems make it a specially protected area. However, mining concessions have affected the quality of the water sources that originate in these moors, affecting the flora and fauna, but above all the inhabitants of Cuenca.

According to Salazar Vintimilla (2020), water sources play a vital role in supplying human consumption, crop irrigation, water supply for animals, and maintaining ecological flows that cross the Cajas National Park. In this sense, the effects of water pollution generate a series of repercussions that persist over time, even after mining activity has ended, due to the presence of toxic metals such as arsenic and mercury.

Water pollution in the Canton of Cuenca has diverse roots, being notable among them: indiscriminate dumping of domestic and industrial wastewater; excessive application of agrochemicals in agriculture, whose residues infiltrate the soil and rivers; and deforestation of water recharge areas, which decrease water retention and infiltration capacity (Pauta-Calle et al., 2019).

Mining contamination in the water sources of the Cuenca canton is alarming due to the presence of more than 200 mining concessions surrounding its moorlands. This scenario compromises vital strategic interests for Cuenca, as mining activity in the water recharge areas of the aforementioned rivers significantly affects the right to water of its residents and the rights of nature.

The right to water enshrined in Article 3 of the supreme law establishes that the State has the primary duty to guarantee the effective enjoyment of the rights prescribed in the Constitution and international instruments, particularly with regard to water, health, food, education and social security for citizens (Constitution of Ecuador, 2008).

From that first definition, during the session of the Constituent Assembly in Montecristi, fundamental principles were supported, as clearly evidenced in Article 12 of the Constitution, which states the following: "the human right to water is fundamental and inalienable. Water constitutes strategic national patrimony of public use, inalienable, imprescriptible, unseizable and essential for life". (Constitution of Ecuador, 2008).

However, the effective application of these rights is not perceived when concessionaires carry out medium and large scale exploitation. Unfortunately, due to the considerable generation of economic income for the Ecuadorian government through mining exploitation, the latter overlooks the rights, being mostly violated the rights of nature and, to the same extent, the right to water, the right to health and other related rights of communities residing in the vicinity of water sources.

Rights of nature

The rights of nature represent an essential pillar that transcends the mere conceptualization of water as a resource for humanity. These rights, enshrined in the Constitution of the Republic of Ecuador, confer on water the status of strategic national heritage, inalienable, imprescriptible, unseizable and essential for life. This comprehensive vision recognizes nature as an entity with its own rights, independent of its usefulness for human beings, and establishes an ethical and legal framework.

In the mining scenario, the rights of nature take on crucial importance. Environmental degradation and water pollution resulting from these activities raise ethical questions about how to balance human needs

with the preservation of ecosystems. The Ecuadorian Constitution, by recognizing nature as a subject of rights, invites a reconsideration of the relationship between human activity and the integrity of nature.

From a legal perspective, the rights of nature offer a normative framework that seeks to harmonize human development with environmental preservation. This approach implies the need to regulate and limit activities that may negatively affect ecosystems. Citizen participation is a key mechanism for ensuring that these regulations are implemented and respected.

The recognition of the rights of nature not only raises ethical questions, but also demands a rethinking of priorities in economic development. The popular consultation in Cuenca, as a mechanism for citizen participation, reflects the community's resistance to possible threats to these rights. Effective implementation of the rights of nature implies considering long-term sustainability over short-term benefits, promoting a harmonious balance between human progress and conservation of the natural environment.

In Ecuador, the preservation of nature plays a fundamental role that reflects the country's unwavering commitment to environmental protection. This commitment is materialized through Ecuador's active participation in various international agreements designed to support and strengthen initiatives aimed at safeguarding biodiversity and ecosystems.

One of these agreements of vital importance is the Nagoya Protocol, an international agreement that seeks to guarantee equitable access and fair distribution of the benefits derived from the use of genetic resources. Since its ratification, the country has been immersed in the elaboration and development of a regulatory framework at the national level that regulates access to genetic resources for specific objectives, such as research, bioprospecting and commercial activities (Sarmiento, 2014).

Within the framework of this initiative, the National Secretariat of Higher Education, Science, Technology and Innovation (Senescyt) assumes a central role, as it is the competent entity regarding access to genetic resources and their derivatives, whether linked or not to traditional knowledge. Consequently, Senescyt is positioned as the national focal point for the implementation and supervision of the provisions of the Nagoya Protocol in the Ecuadorian context.

Participation in the Nagoya Protocol demonstrates Ecuador's commitment to environmental governance and the responsible preservation of its genetic resources, thus contributing to the consolidation of practices that promote sustainability and equity in the use of biodiversity.

This agreement aims to contribute to the preservation and responsible use of biological diversity. It extends to the genetic resources included in the Convention on Biological Diversity (CBD), as well as to the traditional knowledge associated with these resources and the benefits derived from their use (Secretariat of the Convention on Biological Diversity, 2011).

Mining in the Jatunyacu River has left a trail of negative impacts on the environment. The release of mercury-containing mining waste has led to the extinction of the lower reaches of two rivers and has had adverse consequences on the life of aquatic macroinvertebrates. In addition, according to a report by Mongabay Latam, authorities found official machinery linked to municipalities and provinces during an operation led by the Ministry of Government and the Ministry of Defense. This finding suggests that illegal mining not only affects the environment, but also has implications at political and social levels (Alvarado, 2022).

Despite the above, it is essential to highlight that mining plays an indispensable economic role in Ecuador, thanks to its abundant mineral and metal resources. Mining represents an economic, commercial and industrial activity focused on the exploitation and extraction of mineral wealth present in the soil and subsoil through mines and mining operations (Estupiñan et al., 2021).

This industry not only contributes significantly to the country's income, but also generates employment and development opportunities in the regions where these operations are carried out. However, it is imperative that mining operations are carried out in a responsible and sustainable manner, with strict adherence to environmental and social regulations, to ensure an adequate balance between economic growth and the preservation of the natural environment and the well-being of local communities.

This mining activity not only has a positive impact on the country's economic growth, but also contributes significantly to improving the quality of life of the population, according to information provided by the Central Bank of Ecuador. Mining has become a crucial source of

income for the country, playing an important role in economic development. In addition, it translates into an important source of employment, generating significant job opportunities for the Ecuadorian population (Morales et al., 2016).

Right to health

The recognition of the right to health at the global level is consolidated as a result of the Universal Declaration of Human Rights, a milestone that emerged as a response to the events following the Holocaust.

In the State of Ecuador, on January 15, 2007, as part of the actions of the Government of the Citizen Revolution to highlight the importance of health as a fundamental human right, the Ministry of Public Health and the National Health Council (CONASA) carried out consultations through meetings and assemblies in 22 provinces of Ecuador. These initiatives culminated in the III National Congress for Health and Life in Cuenca, April 8-10, 2007. The main focus of the congress was the proposal for the National Constituent Assembly, with the intention of promoting essential changes in the health sector and effectively guaranteeing this right (Pan American Health Organization, 2008).

The consolidation of this right is most prominently visualized with the 2008 constitutional reform, specifically in the principles established in Article 32, which indicates that the State by ensuring health is promoting the exercise of various rights, such as the right to water, education, work, social security, healthy environment, and others that support the ideal of quality of life (Alarcón Cedeño & Suárez Montes, 2020).

Human health in the Canton of Cuenca is linked to water quality, outlining a panorama in which the preservation of this resource acquires a critical magnitude for the wellbeing of the population. The problem of water pollution, exacerbated by various anthropogenic activities, including mining, is a latent threat that directly affects the health of the local inhabitants.

Mining activity, with its emissions and discharges, introduces chemical compounds and heavy metals into water sources, generating an imminent risk to public health. In this context, a detailed analysis of the determining factors reveals a complex network of interconnections between water quality and human health (Salazar, 2021).

Mining, by contributing significantly to the contamination of water sources, poses health risks ranging from acute effects such as gastrointestinal diseases to chronic consequences, such as the accumulation of toxins in the body over time that can lead to cancer of the esophagus, lung, larynx and bladder. In children, metals derived from this activity, such as arsenic, can cause a reduction in IQ (Sánchez Gómez, 2022).

Ecuadorian regulations, in line with international human rights principles, consider it fundamental to safeguard the right to health of the population. However, the effective implementation of these regulations becomes a challenge, especially when faced with economic and political pressures from the mining industry.

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Adequate preservation of water resources is not only essential to avoid adverse health consequences, but is also a central component in building resilient and healthy communities. Public awareness, citizen participation and the effective implementation of policies aimed at water protection are fundamental pillars for safeguarding the health of the population in the Canton of Cuenca and guaranteeing an environment conducive to the flourishing of life and general wellbeing.

A clear example of the violation of the right to health can be seen in the exploitation of the Yasuní National Park. In 2007, Ecuador proposed the Yasuní-ITT Initiative with the objective of preserving oil reserves in this park in exchange for international financial compensation, seeking to protect the unique biodiversity and uncontacted indigenous communities. However, in 2013, the initiative was suspended due to a lack of international financial commitments. Since then, tensions and debates have arisen about oil exploitation in the region, generating concerns about possible environmental impacts on local communities.

Exploitation of Yasuní has posed significant risks to the right to human health due to oil activity in the region. Potential negative impacts include water and soil contamination from spills and leaks. In addition, the forced displacement of indigenous communities, who depend on natural resources, can have serious consequences on their physical and mental health. The environmental and social management of extractive activity can influence the magnitude of these impacts, evidencing the violation of the rights of nature (Allen Pachana, 2022).

Right to citizen participation

Citizen participation in decision-making on the right to water in the canton of Cuenca has become an essential component in developing policies that reflect the needs and priorities of the community. The implementation of participation mechanisms has allowed residents to become actively involved in the definition of water-related strategies and policies, creating a space for the expression of their opinions and concerns.

Transparency of information is a key component of citizen participation. It is essential to provide accessible and understandable data on water quality, ongoing projects, and proposed policies to ensure that citizens are informed and can contribute more effectively. Continuing education on water issues, including community rights and responsibilities, also strengthens participation by providing citizens with the knowledge necessary to make informed decisions.

We find this right established in the Constitution of the Republic of Ecuador in Article 61 numeral 4, which establishes in a taxative manner that all Ecuadorians enjoy being consulted (Garcés Villamil & Rapalino Bautista, 2015).

Citizen participation is not only about being informed, but also about having the ability to influence decisions. Participatory processes in Cuenca Canton seek to empower the community, allowing them to be an integral part of decision-making on crucial water-related issues. This approach contributes to more inclusive and democratic governance, where policies and actions better reflect the needs and aspirations of those who depend directly on the water resource.

In order to analyze how the right to citizen participation was exercised through the mechanism of the popular consultation in the canton of Cuenca, it is essential to know the background of this event. According to Opinion No. 6-20-CP/20 of the Constitutional Court of Ecuador, this process began on September 8, 2020, date on which a request for a preliminary ruling on constitutionality was filed before the Constitutional Court by Pedro Palacios Ullauri, in his capacity as mayor of the Decentralized Autonomous Government of the Cuenca Canton and Antonio Sacoto, in his role as trustee attorney of the GAD of Cuenca.

As a result of the automatic draw of cases carried out by the Constitutional Court, the responsibility of handling this matter fell on Constitutional Judge Karla Andrade Quevedo. The aforementioned constitutional judge, by means of a ruling issued on September 15,

2020, assumed jurisdiction over the present case. In said document, she granted the petitioners a term of 24 hours to submit digitally the certification of the minutes of the corresponding session of the Decentralized Autonomous Government (GAD) of Cuenca, which should include the voting record related to the call for the referendum (Constitutional Court of Ecuador, 2020).

Between September 14 and 18, 2020, several amicus curiae briefs were filed, which will be taken into account by this Court for the resolution of the case. Specifically, on September 14, 2020, Rodrigo Izurieta Andrade, as attorney-in-fact of the company Gold S.A., and Pablo Agustín Zambrano Albuja, as executive president of the Chamber of Industries and Production of Cuenca, together with another amicus curiae who holds the position of president of the National Federation of Chambers of Industries (Constitutional Court of Ecuador, 2020).

Likewise, on September 15, 2020, Nidia María Soliz Carrión presented the perspective of the Cabildo por las Mujeres del cantón Cuenca; Fabián Carrasco Vintimilla, as legal representative of HUBBARD PERFORACIONES CIA. LTDA, offered his vision from the industry; and Fernando Luis Benalcázar contributed with his position in another capacity of representation (Constitutional Court of Ecuador, 2020).

These interventions highlight the diversity of perspectives and actors involved in the cause, from representatives of the mining industry to voices from civil society and the governmental sphere. The plurality of opinions presented through the amicus curiae briefs reflects the complexity and importance of the matter at hand. It is now incumbent upon the Court to consider these valuable contributions in order to reach an informed and equitable resolution. This process, which incorporates diverse voices and experiences, underscores the need for a comprehensive and fair approach to address the challenges raised in this case (Constitutional Court of Ecuador, 2020).

In this consultation, five questions related to the prohibition of large-scale metal mining in the water recharge zone of the Tarqui River were unveiled. According to Montaña (2021) the questions posed during the popular consultation resulted in significant support from 80% of the population of Cuenca, who expressed their support for the prohibition of mining activities in the water recharge zones of the Tomebamba, Tarqui, Yanuncay, Machángara and Norcay rivers. These five rivers play a crucial role in providing water to the population of Cuenca, which is the third largest in the country.

The questions posed in the popular consultation were directly related to the protection and conservation of the right to water, which according to Article 12 of the Constitution of the Republic of Ecuador, water is an essential resource for nature and the survival of species, being a fundamental human right that contributes to well-being, food and food security.

In accordance with this right, the Constitution establishes in Article 14, the fundamental right of individuals, communities, peoples and nationalities to live in a healthy and ecologically balanced environment, in order to ensure sustainability and good living.

The Popular Consultation, as stated in Article 105 CRE, is positioned as a mechanism for citizen participation aimed at obtaining the opinion of the people on issues of importance at the national, provincial, regional or local level. For Garcés Villamil & Rapalino Bautista (2015) the popular consultation is a participation mechanism through which the people exercise their sovereignty, making known their opinion on issues of public interest.

Citizen participation, as provided in Article 95 CRE, involves the direct exercise of power, decision making in matters of public interest and the supervision of those who hold public functions. In addition, it is governed by the principles of autonomy, popular control and public deliberation. This means that through this right citizens can actively influence government policies and actions, especially those involving their rights.

Article 318 of the law establishes that water is a strategic national patrimony of public use, with characteristics of inalienability, imprescriptibility, unseizable and essential for life. This legal provision reinforces the protection and responsible management of water, since without the adequate preservation of this resource the existence of nature and the human race would be compromised.

Article 408 of the supreme law states that the State has the obligation to guarantee the protection and conservation of biological diversity, natural resources and ecosystems, to ensure the quality of life of citizens. In addition, Article 395 of the same legal body establishes the environmental principles that allow environmental management to identify, foresee and assess the direct and indirect effects on the environment.

Materials and Methods

In the development of this scientific article, we will address four subtopics. In the first place, the environmental impact that affects the water sources of the Canton of Cuenca. This first subtopic will allow an integral understanding of the interactions between the aquatic environment and human activities, as well as possible mitigation and preservation measures.

The second sub-theme to be addressed is the rights of nature, we will focus on analyzing how human activities affect their application, specifically in water management. This approach will allow us to explore how the Constitution of the Republic of Ecuador is used to ensure other related rights. In this context, a conceptual framework will be established that encompasses both ethical and legal aspects.

In the third sub-theme, we will delve into the health impacts of water quality through a detailed analysis of the determinants and their direct impact on human well-being. Mining exploitation will be highlighted as a preponderant element, due to its significant contribution to the contamination of water sources. In addition, we will examine how Ecuadorian law, aligned with international human rights principles, safeguards the right to health. This legal perspective will allow us to contextualize the importance of regulations in the preservation of water quality and its consequent impact on health.

Finally, we will focus on the importance of citizen participation in decision making concerning water sources in the Canton of Cuenca. In the same way, we will analyze the planning and execution of measures aimed at positively affecting access, distribution and conservation of water resources in this region.

Citizen participation, conceived not only as a fundamental right, but also as a real driving force, is an essential pillar that catalyzes sustainability practices in the field of water management. Recognizing the interdependent nature of our society and the natural environment, it underscores the importance of conscious citizen participation in water-related decision-making.

This collective commitment is presented as the cornerstone for consolidating a comprehensive and equitable approach to water resource conservation. It is through community participation that more inclusive strategies and policies adapted to local needs are forged. In this sense, citizen participation becomes an effective vehicle

for empowering society, allowing their voices to be heard and taken into account in the formulation of policies that directly impact the quality of life and well-being of the population.

In this context, this article aims to comprehensively analyze the process and results of the popular consultation in Cuenca, from both a legal and environmental perspective, evaluating its impact on the protection of the right to water and the rights of nature in Ecuador.

Results

Mining activity in Cantón Cuenca poses a serious threat to access to water and the integrity of local ecosystems, which has triggered community mobilization through popular consultation as a mechanism for citizen participation. However, this democratic exercise is undermined by legal actions and political pressures, raising questions about the intersection between the individual rights of these companies and the collective protection of water and environmental rights.

Popular consultation, as an instrument of citizen participation, is a tool designed to empower citizens to express their opinion on matters of public relevance. In the specific context of mining activity in the Cuenca Canton, this legal mechanism was used with the purpose of obtaining citizen support for the prohibition of mining exploitation, in order to preserve the integrity of the water resources associated with the Tomebamba, Machángara, Yanuncay and Tarqui rivers. However, despite the results, the negative impact of mining activity in the region persists, which implies a violation of the constitutional mechanism of citizen participation and, therefore, an affectation of human rights.

The failure to comply with the results of a popular consultation constitutes a clear violation of the right to citizen participation enshrined in Article 61 of the Constitution, compromising the fundamental principle of the Ecuadorian State, by virtue of its nature as a democratic State.

This omission not only undermines the exercise of the democratically expressed popular will, but also undermines the legitimacy of the institutions and calls into question the effective protection of the fundamental rights of citizens and the rights of nature. In a constitutional state of rights and justice such as Ecuador's, respect for the results of the popular consultation is fundamental to guarantee the

full validity of democratic principles and to safeguard popular sovereignty as the basis of the political system.

The right to water is a universal right that is related to a series of fundamental rights, including the right to life, health, food, and a healthy environment, among others. When the right to water is violated, not only basic survival needs are compromised, but also people's ability to enjoy other human rights. Water scarcity or contamination can lead to disease, malnutrition and unhealthy living conditions, directly affecting people's quality of life.

The rights of nature are also violated due to mining activity in the canton of Cuenca. Water contamination, deforestation, loss of biodiversity and other environmental impacts associated with mining endanger the integrity of natural systems and affect nature's ability to maintain its balance and sustain life. This contamination is significantly aggravated because it compromises a protected area such as Cajas National Park, which is home to fragile ecosystems that are of utmost importance for environmental conservation and regional ecological balance.

It is worth mentioning that Ecuador's Constitution recognizes nature as a subject of rights, establishing a legal framework that guarantees its protection and recognition. However, its integrity in Cuenca Canton is compromised when mining activity is allowed despite the fact that a popular consultation has supported the prohibition of mining activity with a large majority, as in the specific case in which 80% support was registered. This situation constitutes a clear violation of the rights of nature, by disregarding the will expressed by the citizens in the exercise of their right to participate in decisions of environmental relevance.

The authorization of mining activity in contravention of the will of the people not only contravenes fundamental democratic principles, but also represents a direct threat to the integrity of the country's ecosystems and biodiversity. It is imperative that government authorities and stakeholders involved in decision making respect and abide by the results of the popular consultations, thus ensuring the protection and preservation of the rights of nature in the Ecuadorian legal context.

The protection of the right to water and the recognition of nature as a subject of rights are fundamental aspects of contemporary environmental and social management. In the first place, the right to

water is internationally recognized as a basic human right, indispensable for guaranteeing the health, well-being and dignity of people. This right implies not only physical access to water, but also its availability in sufficient quantity and quality to meet basic human needs, including food, hygiene and sanitation.

On the other hand, the recognition of nature as a subject of rights represents a significant change in the way we conceive of our relationship with the environment. By granting legal rights to ecosystems, rivers, forests and other non-human life forms, it recognizes their intrinsic value and establishes a legal framework for their protection and preservation. This implies that ecosystems have rights, and must be considered in all decisions affecting their integrity.

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The importance of protecting the right to water and the right of nature lies in their interconnection with other key aspects of sustainable development and social justice. Equitable access to water is fundamental to reducing poverty, promoting gender equality and improving living conditions in the most vulnerable communities. Likewise, the protection of nature contributes to biodiversity conservation, climate change mitigation and the promotion of sustainable economic development.

Given the problems posed by mining activity in Cuenca Canton, which threatens fundamental rights and the Sumak Kawsay of citizens, a response framed in respect for human rights and nature is required, as well as compliance with the mechanisms for citizen participation established in Ecuadorian legislation. It is essential to recognize and respect the result of the popular consultation as an exercise of direct democracy, enshrined in the country's legal system.

The majority support obtained in said consultation for the prohibition of mining activity implies the need to abide by said popular will in governmental decision-making related to mining activity in the area in question. In addition, it is imperative to strengthen measures to protect the right to water, considered a fundamental human right, as established in international and national legislation. This implies ensuring equitable, sustainable and safe access to drinking water, as well as preserving the quality and availability of the water resource for current and future generations.

It is necessary to recognize and safeguard the rights of nature, as established in the Ecuadorian Constitution, which recognizes nature as a subject of rights. This protection implies considering the interests

and integrity of local ecosystems in all government decisions related to mining activities, ensuring their preservation and restoration in the event of negative environmental impacts.

Likewise, it is essential to promote a sustainable development approach that integrates environmental protection and human rights in all policies and actions related to mining activity. This includes the adoption of responsible mining technologies and practices, as well as the promotion of sustainable economic alternatives that diversify the local economy and reduce dependence on mining activity.

Conclusions

The case of Ecuador, and specifically the canton of Cuenca, offers a complex scenario between economic development driven by mining and the preservation of fundamental rights, such as access to water and environmental protection. The global recognition of the right to health, linked to the Universal Declaration of Human Rights, is reflected in Ecuador's efforts to ensure health as a fundamental right. The consolidation of this right is manifested in the 2008 constitutional reform, which establishes the interrelationship between health and other essential rights.

However, the intrinsic connection between water quality and human health, especially in the Canton of Cuenca, is threatened by mining activity, especially illegal mining. The health risks to both mine workers and local communities are evident due to the contamination of water, soil and air with toxic substances and heavy metals.

The Ecuadorian government's response, marked by popular consultations, such as the one held in Cuenca in 2021, highlights the importance of citizen participation in making crucial decisions about mining exploitation. Through this consultation, the population expressed its support for the prohibition of mining activities in critical areas for water recharge, demonstrating the relevance of balancing economic development with the preservation of essential natural resources.

The recognition of the rights of nature in the Ecuadorian Constitution adds another dimension to the analysis. These rights, focused on environmental preservation, provide a normative framework that seeks to harmonize human development with the protection of ecosystems. Citizen participation becomes a crucial mechanism to

ensure that these regulations are effectively implemented and respected.

Mining, on the one hand, contributes to economic growth and generates employment, according to official sources. On the other hand, its negative impacts on human health and the environment pose significant challenges. The popular consultation in Cuenca, with broad public support for a ban on mining activities, suggests a collective will to preserve health and the natural environment.

Ultimately, Ecuador faces the challenge of balancing the economic benefits of mining with the need to protect the health of the population and preserve the environment. Effective implementation of policies aimed at water protection, citizen participation and responsible management of natural resources are crucial to achieve this balance and ensure long-term sustainable development.

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