

The dark side of the mining **'boom'** in Colombia

Esteban Muñoz-Galeano



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Introduction

Colombia has a considerable amount of mineral resources which have been exploited since colonial times. The extraction of minerals used to be informal, artisanal and on a small scale; therefore, the impact of mining on the land and the soil cover was not significant.¹

However, this situation is now remarkably different. The presence of the mining industry in certain areas generates sociopolitical conflicts, namely, issues regarding land ownership, "unfair" compensation practices to former owners, unequal distribution of resources and environmental degradation. In short, the dynamics of those territories have changed.²

The growth of mining operations in Colombia has accelerated due to recent policies of the former and current governments. These policies include the positioning of Colombia as a major player in the territorial division of labour and the exportation of natural resources through direct investment of foreign capital. The mining potential of the country, as well as its vast amount of mineral reserves, like gold and coal, have turned Colombia into a mining destination for foreign companies.³

In fact, in the National Development Plan 2010-2014, entitled *Prosperity for All: more jobs, less poverty and more security*, the current president of Colombia, Juan Manuel Santos, identified mining and energy activities as the main tools for the country to develop economically. Such assets are referred to in the Development Plan as a "development locomotive". This idea is coherent with those of

¹ Fernández, J. P., & Valencia, M. A. (2010). Libre comercio y minería en Colombia - El caso de la Anglogold Ashanti. Colombia: Red Colombiana de Acción Frente al Libre Comercio (Recalca).

² Insuasty Rodriguez, A., Grisales, D., & Gutiérrez León, E. M. (2013). Conflictos asociados a la gran minería en Antioquia. *El Ágora USB*, 371-397.

³ Gravelle, J. (2011, agosto). Colombia's mining industry is growing up, but not without some growing pains. *Canadian Mining Journal*, p. 2.

the former president, Alvaro Uribe, whose policies were aimed at guaranteeing financial safety for foreign investors.⁴

Nevertheless, the current economic policies with regards to mining have brought unexpected results: in their pursuit to drive this mining "locomotive", private companies and illegal armed groups have breached human and environmental rights, including several international treaties and regulations. Namely, the Geneva Convention IV, its Additional Protocols I and II, the UN Guiding Principles on Internal Displacement, the ICRC Customary International Humanitarian rules, the American Declaration on Human Rights, the 1972 Stockholm Declaration, some of the UN General Assembly Resolutions and the International Covenant on Civil and Political Rights, among others. Furthermore, the 1991 Colombian Constitution and other local laws have also been overlooked.

Certainly, in the recent Colombian context, socio-political conflicts have led to widespread violence, mainly represented by forced displacement and land dispossession. Up to 2014, the number of Colombians who have been forced to leave their homes is at least 5,700,000.⁵ As an example, 1'194.174 of such cases occurred in Antioquia, a central-western department known for its great reserves of diverse minerals. Other regions, such as La Guajira, Cesar and Tolima, have also been affected by social conflicts related to mining, as it will be exposed in this document. Coincidently, both multinational mining companies and illegal armed groups are present in the areas mentioned.⁶

Additionally, open-pit mines of coal and nickel are rapidly changing the soil cover and contributing to air pollution and the contamination

⁴ Dirección de Planeación Nacional Colombia, Plan Nacional de Desarrollo 2010-2014 Tomo I. P. 205.

⁵ Norwegian Refugee Council. Global Overview 2014 People internally displaced by conflict and violence, May 2014.

⁶ Mendoza Piñeros, A. M. (2012). El desplazamiento forzado en Colombia y la intervención del Estado. Revista de Economía Institucional, 1st semester 2012. 169-202.

of rivers due to legal and illegal mining practices.⁷ Drilling in open-pit mines, leaching of hazardous chemicals such as mercury or cyanide, and the removal of the topsoil in order to reach the ore deposits have harmful effects on the land. The use of modern excavation equipment such as conveyors, large machinery and pipelines permits the removal of whole mountains in a matter of hours, while making it profitable to extract, for instance, less than one gram of gold per ton of material removed and putting a huge strain on the land.⁸ In addition to harming the soil, the people who work in the mines, local inhabitants and the flora and the fauna of the nearby areas are greatly affected by these practices.

The question addressed in this dissertation then, is what are the most significant breaches to human rights and the adverse effects on the environment resulting from the open economic policies implemented by the last Colombian Government's between 2002 and 2014 for the extraction of gold and coal in the departments of Antioquia, Cesar, La Guajira and Tolima?

Bearing this in mind, this document first contains an overview of the mining policies adopted during the mentioned period, and their transformation throughout the years. It then goes on to the two most problematic situations documented so far, namely, the breach of human rights in the form of forced displacement and violence against civilians in areas of abundant mineral reserves and the violation of environmental rights due to contamination of land, water and air resources.

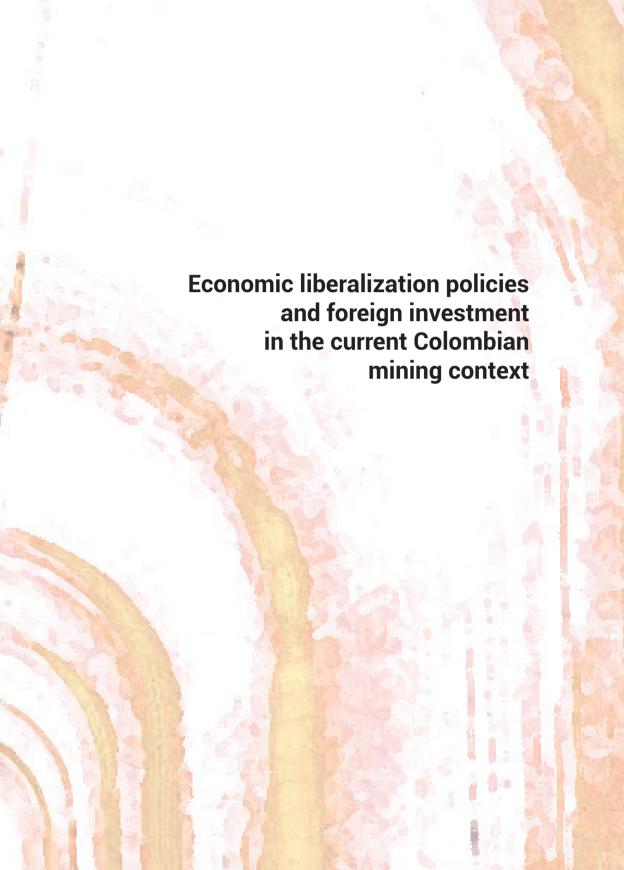
This research seeks to analyze within the context of a descriptive methodology, how these "unwelcome" social and environmental side effects of the mining industry in Colombia can be considered breaches of diverse human and environmental rights in the most relevant

Espinosa, D. de J., & Toro, L. J. (2012). Evaluación de la susceptibilidad a la erosión por el cambio de cobertura debido a la minería, en el Municipio de Anorí, Antioquia, Colombia. Revista Gestión y Ambiente.

⁸ Asociación Ecológica Costarricense - Amigos de la Tierra. (2007, octubre 3). Minería de oro a cielo abierto y sus impactos ambientales. Publication in: http://www.noalamina.org

mining zones. Therefore, it involves diverse research variables, foremost among them: normative on the topic, public international law instruments on this object, relevant judicial decisions, as factual figures extracted from diverse authorities and recognized NGOs.

This qualitative investigation then, includes an explanation research methodology as well, which points out to the international and local legal framework applicable in the mining industry, in contrast with studies selected by their international recognition. This approaching offers quantitative and qualitative data collected by public officials, local and international NGOs that have conducted studies in the most affected regions, which means a legal dogmatic approach based on the results of empirical evidence collected by PAX Netherlands, DanWatch Denmark and the London mining Network.



Nowadays, Colombia is considered an emerging power when it comes to mining and oil. In just the last 10 years, authorization to develop mineral and oil extraction projects has been sought in 40% of Colombian territories. According to the Ministry of Agriculture and Rural Development, mining programs have been approved on more than 5.8 million hectares of land. 10

In fact, the mining history in Colombia could be traced back to Colonialism, when the country used to export one quarter of the gold in circulation in the world. Nowadays, some of the Spanish Crown customs are still in place. For example, a regulation that dates back to the thirteenth century of the Reign of Castile, appoints the State as owner of all mineral resources that may be found on and underneath the ground. Provided the product of the product

The State, as sole owner of all the mineral resources within its territory, established the concept of *mining title*. This is the generic name given to a permit to obtain benefits and profits from a potential mining resource within national borders. Such approval is granted by the Colombian State to either natural or juridical persons and is formalized through the subscription of a concession contract.

Before opening a mine, beneficiaries must follow a series of steps. First, a study that proves the existence of a certain mineral in the field needs to be carried out; second, it is necessary to determine if the deposit has any economic value; and finally, the beneficiary must conduct research on technical feasibility while bearing in mind economic and environmental factors. If such requirements are met, it is then possible to open the mine.¹³

⁹ Censat Agua Viva. Agua o minería un debate nacional. ISBN 978-958-99801-2-5. Bogotá. Abril 2011.

Juan Camilo Restrepo, "A comprehensive land policy for Colombia," Plenary Presentation before the House of Representatives, (Bogotá, Colombia), August 2010.

¹¹ Caballero Escobar, Enrique. Incienso y pólvora. Amazonas Editores, 1985, pág. 18.

¹² Ponce M., Á. ¿Cuál Locomotora? El desalentador panorama de la minería en Colombia (1.a ed.). Colombia 2012.

¹³ Ibidem.

In recent years, the Colombian Government has announced the advent of a "mining boom" and described this phenomenon as an "economic engine" that will bring development and prosperity to the country. These terms were first employed by the former president of Colombia, Álvaro Uribe Vélez (2002-2010), 14 who opened the doors to transnational mining companies and concentrated important efforts on portraying the country as an interesting destination for mining. Such "open-door" policies have been preserved by Colombia's current president, Juan Manuel Santos, who perceives mining by private companies as a "locomotive of development" for the country, which will bring, on paper, "prosperity to all, more jobs, less poverty and more security". 15

As a matter of fact, Santos' National Development Plan 2010 – 2014 identifies five individual "locomotives of development": infrastructure, agriculture, housing, mining and innovation. These are all aimed at producing an estimated 10% of economic growth each year.

These "locomotives" comprise a total of 234.4 billion Colombian pesos. Out of this budget, 96.6 billion have been invested in mining and energy expansion, which represents 17% of the total cost of the National Development Plan. In contrast, 11.7 billion (2% of the plan) have been allocated for agricultural and rural development activities¹⁷, which reflects a clear intention to impose an economic model based on the extensive exploitation of natural resources in the Colombian subsoil.

The policies mentioned have already shown results. In 1996, external investment in the mining industry was 2.2%. Just five years later, in 2001, after the enactment of the Mining Code, foreign

¹⁴ Peasant Farmer Association of the Cimitarra River Valley, "Informe sobre la situación minera y de derechos humanos en el nordeste antioqueño," 15 October 2010, In: http://prensarural.org/spip/spip.php?article4735

¹⁵ Dirección de Planeación Nacional Colombia Op. Cit. 4.

¹⁶ Ibidem.

¹⁷ Insuasty Rodriguez, A., Grisales, D., & Gutiérrez León, E. M. Op. Cit. 2.

investment in mining reached 26%. Figure 1 illustrates the growth in lands requested for mining exploration by foreign companies between 1994 and 2009.

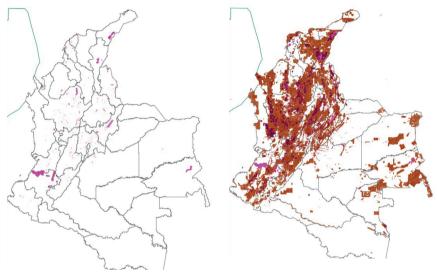


Figure 1. Source: Reclame Colombia.19

The Mining Code (Law 685, 2001) has proven itself essential in attracting foreign investment. In fact, Article 1 establishes that the role of the State in mining matters is "to facilitate mining activity, to promote sustainable development and to supervise mining incomes"²⁰. In this way, the State renounces its share of the mining rent and restricts its participation to collecting taxes, contributions and economic compensations from the mining participants.²¹

¹⁸ Banco de la República, subgerencia de Estudios Económicos y Departamento de Cambios Internacionales. Flujos de inversión extranjera directa en Colombia según actividad económica – balanza de pagos. 1994 – I trim. 2009.

¹⁹ Available from: http://es.slideshare.net/TatianaMaldonado/guillermo-rudas-foro-de-reclame

²⁰ Congress of the Republic of Colombia. Article 1, Law 685 of 2001.

²¹ Mejia, Luis Ernesto. Foro de Infraestructura 2019 – Minas y Energía. March 2006.

Figure 1 shows how, just 20 years ago, Colombia was not on the map as a mining destination for multinational companies, which refrained from getting involved due to guerrilla warfare and narcotics issues.²² However, these companies have since recognized the progress made with regard to safety, and now the country is on its way towards "becoming an international mining powerhouse".²³ The fact that Colombia is a mineral-rich territory, of which 80% is still unexplored, presents an interesting proposition for global mining companies.²⁴

As indicated by DANE (the Colombian government official institution in charge of statistics), the mining industry contributed 5% of the country's total production in 2009,²⁵ and it was expected to reach 12% by the end of 2016. As a result of this anticipated growth, the Ministry of Mines and Energy has described the mining industries the "economic development axis of the country in the last decade".²⁶

The importance of the mining industry nowadays in Colombia is also noticeable in the *National Mining Development Plan Vision 2019*, which states that "in 2019 Colombian mining be one of the most important industries on the continent".²⁷ In the same vein, one of the Government's main goals is to keep the country in the list of the top five destinations in Latin America for mining investment, to double national mining production and to guarantee tax stabilization for investors.²⁸

Because of the arrival of multinational mining companies, the level of land acquisition by foreign companies in Colombia has reached its highest historical level in the last few years in Latin America²⁹. For

²² Gravelle, J. op. Cit. 3.

²³ Ibidem.

²⁴ Ibidem.

²⁵ Ministry of Mines and Energy. Anuario Estadístico Minero Colombiano., 2009.

²⁶ Mejía, Luis Ernesto. Op.Cit. 20.

²⁷ Program, 'Visión Colombia: Minería 2019'. http://www.upme.gov.co/Docs/PNDM_2019_Final.pdf P. 67

²⁸ Ministry of Mines and Energy. Ibid. Op. Cit. 24.

²⁹ Borrás, S. M., Franco, J. C., Gómez, S., Kay, C. y Spoor, M. (2012). Land Grabbing in Latin America and the Caribbean. Journal of Peasant Studies, 39(3–4), 845-872.

instance, just two of the main coal mining companies – Drummond and Cerrejón – have acquired 130,000 hectares of land in the departments of La Guajira and Cesar.³⁰ **Figure 2** depicts the participation of international companies in the mining industry³¹; it also shows how multinational companies are exploiting different types of minerals in Colombia, namely, coltan, nickel, coal and gold, and how the latter two, together with oil, are the most extracted minerals in the country.³²

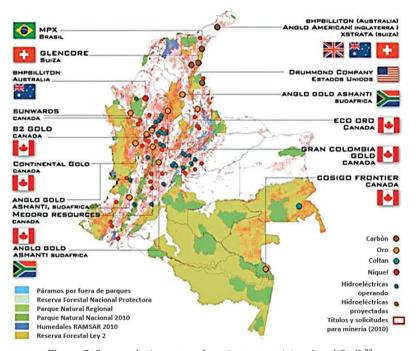


Figure 2. Source: Action network against extractivism (modified).33

³⁰ Velasco, J. D. Negociando la tierra: Empresas extranjeras, minería a gran escala y derechos humanos en Colombia. Estudios Socio-Jurídicos,16(1) 2014, pp. 289-314. In: dx.doi. org/10.12804/esj16.1.2014.07

³¹ In which, 'Oro': Gold, 'Carbon': Coal, 'Niquel': Nickel, 'Acero': Steel, 'Coltan': Coltan, 'Materiales de Construcción': Construction materials.

³² Vicente, A., Neil, M., James, D. S., Briss, M., Lefebvre, S., & Bauer, B. (2011a). Colombia: Minería en Colombia ; a qué precio? PBI Colombia. P. 9.

³³ http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S1657-80312013000200004

In fact, Colombia now produces more coal than any other country in Latin America,³⁴ and its coal reserves are the largest in the continent.³⁵ Moreover, recent studies have shown that "at the current rate of extraction, coal mining in Colombia could continue for another 100 to 120 years".³⁶ For its part, gold production in Colombia has reached a level of 40 tons per year, and according to the *Visión Colombia: Minería 2019* Program, such production is expected to rise to 143,186 tons per year during 2015.³⁷

When it comes to oil as the main export of the country,³⁸ its current rate of production (1.4 million barrels in 2014) ³⁹allows comparison with other OPEC members, such as Venezuela⁴⁰ or Egypt.⁴¹ ECOPETROL, the largest company in the country and also one of the five biggest companies on the continent, besides having oil extraction fields in the center, south, east and north of the country, possesses two refineries, ports for export and import ports on both the Atlantic and Pacific coasts and a pipeline network of 8,500 kilometers across the country.⁴²

A "mining boom" is indeed taking place in Colombia, but it is not only multinational companies that are interested in this attractive business. Illegal armed groups such as the FARC guerrillas

³⁴ María Teresa Ronderos, "Fiebre minera se apoderó de Colombia," Semana, 6 September 2011. http://www.semana.com/nacion/fiebre-mineraapodero-colombia/163716-3.aspx

³⁵ Mingorance, Fidel. "Distritos mineros y Territorios Indígenas," 24 October 2010. In: http://geographiando.hrev.org/2010/10/24/distritos-mineros-yterritorios-indígenas

³⁶ Ibidem.

³⁷ Program, 'Visión Colombia: Minería 2019'. Op. Cit. 26.

³⁸ Mingorance, Fidel. Op.Cit. 33.

³⁹ Program, 'Visión Colombia: Minería 2019'. Op. Cit. 26.

⁴⁰ Reuters, Américaeconomia.com, "Venezuela espera subir producción de petróleo a 5M de barriles diarios en 2014," 27 March 2011. In: http://www.americaeconomia.com/negocios-industrias/venezuela-espera-subirproduccion-de-petroleo-en-45m-de-barriles-por-dia-al-2014

⁴¹ Flores, Luis. "La importancia de Egipto," The Economist Mexico, 1 February 2011. In: http://eleconomista.com.mx/mercados-estadisticas/2011/02/01/importancia-egipto.

⁴² As it is stated in the official web site of the Company: http://www.ecopetrol.com.co/contenido.aspx?conID=37994&catID=30.

(Revolutionary Armed Forces of Colombia), paramilitary groups and common criminal organizations have also noticed the juicy economic gains to be made in the mining industry and have started to play an important role in its operations. In fact, it has been documented that the locations of these groups' overlaps with areas of mining operations, and mining is often used as a cover to launder money earned from exporting drugs.⁴³

The presence of illegal armed groups has contributed to a breach of human rights in mining areas. A report published in 2011 by the UNDP (United Nations Development Program) shows that competition for lands has led to land evictions.⁴⁴ It is also known that the convergence of the mining industry and illegal armed groups in these areas has affected civilians severely, since it is a cause of forced displacement and other threats to the human rights of a substantial number of families.⁴⁵

Additionally, the process of mining has brought about environmental degradation in rural areas. The extraction of mineral resources demands the use of highly toxic products like mercury or cyanide, which leads to the contamination of land and hydric resources. This affects, not only the civilian population, but also a large number of species in what is the second most bio-diverse country on the planet. The most common situations that civilians and animal species have to face are diversions in the course of rivers, the use of dynamite and deforestation. These processes are due to the need to expand mines and build infrastructure to move minerals to the ports. The second most bio-diverse are diversions in the course of rivers, the use of dynamite and deforestation.

⁴³ Vicente, A., Neil, M., James, D. S., Briss, M., Lefebvre, S., & Bauer, B. Op. cit. 31. P. 9 and 10.

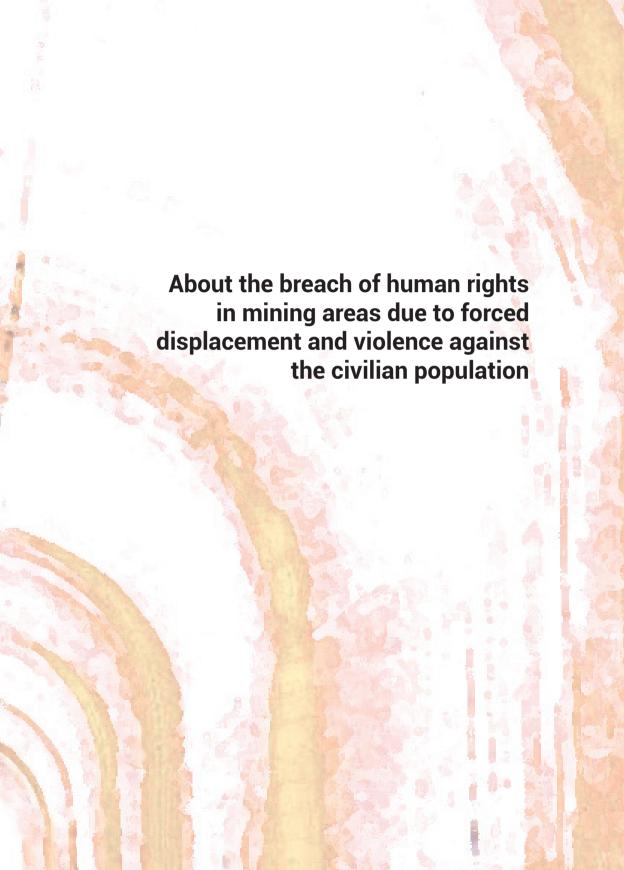
⁴⁴ Ibidem. P. 6.

⁴⁵ Rodríguez, Guadalupe. "Rebelión contra la minería de oro en Colombia". Otramerica, 10 July 2011, http://otramerica.com/temas/rebelion-contra-lamineria-del-oro-en-colombia/410

⁴⁶ Alexander von Humboldt Institute of Biological Resource Investigation, "Biodiversidad en Colombia," http://www.humboldt.org.co/chmcolombia/ biodiversidad.htm

⁴⁷ Rodríguez, Guadalupe Op. Cit. 43.

The influence of illegal armed groups and the presence of big multinational companies in a significant part of the Colombian territory has triggered diverse social and environmental problems within the areas of higher mining activity. These situations have proven challenging since their damaging consequences cannot be predicted by the authorities. In the following chapters, the two main types of damage caused by this phenomenon in Colombia will be examined: first, the social impact and the violation of human rights in the form of internal forced displacement caused by the exploitation of natural resources; and second, the environmental impact and violation of human rights because of the pollution of lands and hydric resources.



International and local legal framework on internal displacement

The United Nations has defined forcibly displaced people in its Guiding Principles on Internal Displacement as:

Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.⁴⁸

There are diverse international mechanisms that seek to preserve the rights and interests of people who are internally displaced, ⁴⁹ but the UN Guiding Principles on Internal Displacement are the cornerstone of all of these when evaluating their situation. The international community has supported these principles even though they are classified as soft laws, therefore not-binding in nature. ⁵⁰ They establish the importance of guaranteeing displaced people access to the same rights and conditions as fellow citizens and prohibit all types of discrimination, as Principle 1 states:

Internally displaced persons shall enjoy, in full equality, the same rights and freedoms under international and domestic law as do other persons in their country. They shall not be discriminated against in the enjoyment of any rights and freedoms on the grounds that they are internally displaced.

Also, these principles emphasize the significance of fundamental and human rights such as the right to dignity and physical, mental and moral integrity (Principle 11); to liberty and security (Principle

⁴⁸ United Nations Organization. Guiding Principles on Internal Displacement, 1998. In introduction. [http://www.idpguidingprinciples.org/].

⁴⁹ International Committee of the Red Cross. Advisory service on International Humanitarian Law: Internally displaced persons and international humanitarian law. March 2010. P. 1.

⁵⁰ Ibidem.

12); to life during displacement (Principle 10); and to an adequate standard of living (Principle 18), among others. It is also established that National authorities "have the primary duty and responsibility to provide protection and humanitarian assistance to internally displaced persons within their jurisdiction" (Principle 3).

In accordance with the UN Guiding Principles, there are different legal international provisions regarding the prevention of forced displacement and protection of its victims. In fact, the Geneva Convention IV, which discusses the protection of individuals in time of war, and the Additional Protocols I and II embody them as customary law.

The Geneva Convention deals with the prohibition of forced displacement establishing in its Article 49 that "Individual or mass forcible transfers, as well as deportations of protected persons from occupied territory to the territory of the Occupying Power or to that of any other country, occupied or not, are prohibited, regardless of their motive". This stance is also reflected in Article 147 of the same Convention, as well as in Article 51 (7), 78 (1) and 85 (4, a) of the Additional Protocol I, and Articles 4 (3, e) and 17 of the Additional Protocol II. This point is also stated in rules 129 and 132 of ICRC's Customary International Humanitarian Law rules.⁵¹

Besides the prohibition of forced displacement and the right of displaced people to return to their homes, there are several other guarantees that need to be made to the victims, due to their particular vulnerability. One, is the right to non-discrimination, set down in Articles 3 and 27 of the Geneva Convention IV, Article 75 of the Additional Protocol I and Articles 2 (1) and 4 (1) of the Additional Protocol II. It establishes that persons involved in armed conflict "shall in all circumstances be treated humanely, without any adverse distinction founded on race, color, religion or faith, sex, birth or wealth, or any other similar criteria" (Art. 3 GC IV).

⁵¹ ICRC, Customary International Humanitarian Law, Henckaerts, Jean-Marie and Louise Doswald-Beck, ICRC-Cambridge University Press, UK, 2009 Third Edition. P. 1.

In the same vein, the right to life, dignity and freedom is encouraged to be respected and protected under Articles 3, 27 and 32 of the Geneva Convention, 75 of the Additional Protocol I and Article 4 of the Additional Protocol II. This right to life and dignity includes the right to protection of the physical and mental integrity of people affected by displacement (Articles 75 Additional Protocol I and 4 of the Additional Protocol II).

Displaced persons are also entitled to the right to family reunification [GC IV Art. 26, 27 and 49, AP I Art. 74, AP II 4(3)]; to documentation [GC IV Art. 50 and Art. 97(6)]; to property and possessions (GC IV Art. 33, AP I Art. 85); and the right to education, even in the midst of conflict [GC IV Art. 24(1)]. It is an obligation of the international community and every State to respect these rights and foment their consideration when enacting national legislation.

In the regional context, the American Declaration on Human Rights established the duties of the State in relation to the fundamental rights of its people (Article 1), such as the right to life (Article 4), to humane treatment (Article 5) and to personal liberty (Article 7), among others. Article 22 states the right to freedom of movement and residence, which is vitally important for displaced persons, refugees and asylum seekers:

Article 22. Freedom of Movement and Residence

7. Every person has the right to seek and be granted asylum in a foreign territory, in accordance with the legislation of the state and international conventions, in the event he is being pursued for political offenses or related common crimes.

8. In no case may an alien be deported or returned to a country, regardless of whether it is his country of origin, if in that country his right to life or personal freedom is in danger of being violated because of his race, nationality, religion, social status, or political opinions (American Declaration on Human Rights).

In addition, there are further points specified in the American Convention on Human rights aimed at protecting this vulnerable community: the right to juridical personality (Article 3), to life (Article 4), to a fair trial (Article 8), the rights of the family (Article 17), to nationality (Article 20), to property (Article 21), to equal protection (Article 24) and to judicial protection (Article 25).

In relation to Colombia and against this international legal background, the first explicit approach to the protection of displaced persons was established in Law 387 of 1997, which puts the Colombian state in charge of guaranteeing the rights and protection of this population. The first Article of this law offers a definition of an internally displaced person, which clearly originates in the UN Guiding Principles on Internal Displacement, as follows:

Someone who has been forced to migrate within the national territory, abandoning his place of residence or habitual economic activities due to the fact that their lives, physical integrity, safety or personal freedom have been violated or are directly threatened because of any of the following situations: internal armed conflict, internal strife, generalized violence, massive violations of human rights, violations of international humanitarian law or other circumstances emanating from the former situations, that may alter drastically the public order.

For its part, Article 2 of this law specifies the 'principles' of internal displacement, which include a variety of measures to protect the displaced person's integrity and rights. Some instances of such principles are "the right to request and receive international aid and this generates a correlative right of the international community to provide humanitarian aid" (Principle 1), "the right of access to a definitive solution to their situation" (Principle 5) and "the right to return to their place of origin" (Principle 6).

But one of the novelties of Law 387 of 1997 is the explicit mention of the responsibility of the Colombian state to protect the displaced persons and to take action as necessary to prevent such a situation. Article 3 says:

It is the responsibility of the Colombian State to formulate policies and adopt measures for the prevention of forced displacement; giving attention, taking care, and reaching the socioeconomic consolidation and stabilization of internally displaced persons.

For purposes of the preceding paragraph, it shall be taken into account the principles of subsidiarity, complementarity, decentralization and concurrence; in which the Colombian State organization is based.

In addition, the same law requires the establishment of certain institutions aimed at providing integral attention to internally displaced persons. The creation of the National System of Integral Attention to the Displaced Population, and the Regional Committees for the Attention of the Displaced Persons in municipalities, districts and departments is announced in Articles 4 and 7 respectively.

In late 2000, forcing communities to leave their homes started to be considered a crime against humanity in Law 589, which was later incorporated in Article 159 of Law 599 of July 24th, 2001 (Colombian Penal Code). The enactment of Law 1448 of 2011 took place one decade later, in response to the high number of internally displaced persons. The Victims and Land Restitution Law, as it was named, bears significant importance when it comes to the protection and safeguarding of displaced communities, and it has been set up as an attempt to offer reparations to Colombian conflict victims.⁵² Together with this law, a series of National Decrees were enacted in order to regulate the process and provide the most vulnerable victims with special treatment. The most significant decrees relative to this objective are 4633, 4634 and 4635, which include measures of assistance, care, comprehensive reparation and restitution of land rights to victims belonging to Indigenous, Gipsy and Afro communities. Decrees 4800, 4801, 4802 and 4829 also establish the internal structure of the special administrative office in charge of managing the Restitution Process.

⁵² Martinez Cortez, Paula. Ley de víctimas y restitución de tierras en Colombia en contexto. Berlín, December 2013. P. 10.

The Victims and Land Restitution Law is a milestone in the recent history of Colombian conflict due to its acknowledgment of the internal armed conflict; it has also meant important efforts are being made towards the reparation of the victims' condition, through attempts to bring people who have been displaced, regardless of the circumstance, back to their lands. Article 1 of Law 1448 of 2011 establishes that:

This Law aims to establish a set of administrative, social and economic measures, individually and collectively speaking, on behalf of victims of the violations referred in Article 3 of this Act, within a framework of transitional justice, which would make it possible to guarantee their rights to truth, justice and reparation and non-repetition, hence their condition as a victim is recognized and dignified through the materialization of their constitutional rights.

Besides explicit protection, displaced people are entitled to fundamental rights as stated in the 1991 National Constitution, such as the right to life (Article 11), to humane treatment (Article 12), to equality and prohibition of discrimination (Article 13), to freedom of movement, understood as "the right of free locomotion within the national territory, to enter and leave it, and to stay as a resident in Colombia" (Article 24), to work (Article 25), and to liberty (Article 28).

In addition, the Colombian Constitutional Court has made important progress regarding the treatment and rights of displaced people. In Sentence T-227 of 1997, this Court pointed out for the very first time, that the condition of an internally displaced person does not depend on the certification of an authority, but is determined by the condition itself and the advent of two situations: the use of coercion that forces the displacement and the fact that such displacement happens within Colombian borders.⁵³

⁵³ Constitutional Court of Colombia. Sentence T-227 of 1997. Brigadier Ropero Mora and others vs. Cundinamarca Department. Reporting Judge Alejandro Martínez Caballero.

The efforts of the Constitutional Court have been recognized for correcting negligent and discriminatory actions or omissions by the authorities in their attention to the displaced population⁵⁴; pointing out the institutional responsibilities involved in the care of the displaced population⁵⁵; establishing criteria for the interpretation of rules on displacement matters⁵⁶; fomenting the development of policies and programs to the attention of this phenomenon⁵⁷; and providing effective protection to the displaced population, in particular to communities that must be regarded with special consideration under the National Constitution, such as children, women who are heads of family, elderly people and ethnic minorities,⁵⁸ among others.

As can be noticed in the above norms and judicial decisions, Colombian authorities have made significant efforts towards protecting the internally displaced population, at least from a regulatory point of view. These efforts are in line with the international legal framework, constituted by the establishment of the Guiding Principles on Internal Displacement, the Geneva Convention IV and its additional Protocols by the UN as well as the principles derived from the American Convention on Human rights. However, the next sections will show that these rules, as the Colombian legal framework, have unfortunately remained only on paper in some instances.

Also, it is worth mentioning that as far as concerns international instruments and national legislation, the Colombian state is responsible for protecting internally displaced persons and taking any measures

⁵⁴ Constitutional Court of Colombia. Sentence T-1635 de 2000, Defensor del Pueblo Regional de Bogotá vs la Red de Solidaridad Social. Reporting Judge José Gregorio Hernández Galindo.

⁵⁵ Constitutional Court of Colombia. Sentence SU-1150 de 2000, Regional de Antioquia de la Defensoría del Pueblo vs Inspección 8B Municipal de Policía de Antioquia and others. Reporting Judge Eduardo Cifuentes Muñoz.

⁵⁶ Constitutional Court of Colombia. Sentence T-098 de 2002, Luz Mosquera Aluma and others vs. Red de Solidaridad Social Reporting Judge Marco Gerardo Monroy Cabra.

⁵⁷ Constitutional Court of Colombia, Sentence SU-1150 de 2000, Op. cit 53

⁵⁸ Constitutional Court of Colombia. Sentence T-215 de 2002, Narciso Doria Segura y Pedro Tuberquia vs Colegio Sol del Oriente and others. Reporting Judge Jaime Córdoba Triviño.

necessary to prevent and halt this phenomenon. Such responsibilities are addressed by all the international mechanisms mentioned above and are made explicit through Article 3 of local Law 387 of 1997.

Facts and figures about internal forced displacement in mining zones in Colombia

In a globalized world that demands a permanent flow of natural resources based on the mass production system, the exchange of raw materials between different countries has become necessary. For instance, the United States alone depends considerably on the exchange of goods such as minerals and energy resources. The United States imports 100% to 90% of the manganese, chrome and cobalt, 75% of tin, 61% of copper, nickel and zinc, 35% of steel, and 12% to 16% of bauxite and lead that the country requires. On the other hand, Latin America and the Caribbean provide the US with 66% of its aluminum, 40% of its copper and 50% of its nickel.⁵⁹

For example, in 2013 in Colombia, the total foreign direct investment reached a record \$16,822 million American dollars, of which 81.6% was invested in oil, hydrocarbons and mining investments (USD \$13,763 million). This represents an increase of 2.9% in comparison with the previous year.⁶⁰ The rest of the total investment went to macro projects in different areas such as agroindustry, micro and hydroelectric plants and water for energy production, necessary to supply the demands of transnational mining companies.⁶¹

These activities depend on land tenure, which is the main condition for developing all kinds of projects. This leads to a high concentration of land acquired through legal and sometimes illegal means in Colombia.⁶² Against this background, rural lands with

⁵⁹ Insuasty Rodriguez, A., Grisales, D., & Gutierrez León, E. M. Op. Cit. 2.

^{60 &#}x27;Dinero' Magazine, January 10, 2014: http://www.portafolio.co/economia/inversion-extranjera-directa-colombia-2013

⁶¹ Insuasty Rodriguez, A., Grisales, D., & Gutierrez León, E. M. Op. Cit. 2. P. 45.

⁶² Ibidem.

abundant natural resources and biodiversity, mainly occupied by peasants, indigenous and Afro-Colombian communities⁶³ may face land dispossession, forced displacement, persecution of leaders, among other troubling scenarios. The exploitation of natural resources and large scale projects, which represent the interests of the National Government and multinational companies, collide with the strong cultural roots of these communities, who refuse to give up ownership and are thus forcibly displaced through violent and illegal means.⁶⁴

Colombia has the second highest number of displaced people in the world, after Syria.⁶⁵ From 1985 to 2008, the conflict between the Government and illegal armed groups pushed more than 4 million people to leave their homes due to direct intimidation or violence.⁶⁶ One of the major issues that besets displaced people is that their human rights are not guaranteed. Additionally, the Colombian state has proven historically ineffective in taking care of victims and designing policies and strategies to stop the growth of the displaced population.⁶⁷ It is also important to consider that the impact of this social phenomenon on its victims goes far beyond their displacement and material losses. It also brings about the loss of homes, the infringement of their human rights and the limitation of their personal and social development.⁶⁸

One of the main causes of forced displacement is territorial occupation, aimed at expanding the area of influence of illegal

⁶³ Ibidem.

⁶⁴ Ibidem.

Norwegian Refugee Council. Op. Cit. 5. P. 41.

⁶⁶ Codhes, Desplazamiento creciente y crisis humanitaria invisibilizada. Boletín de la Consultoría para los Derechos Humanos y el Desplazamiento Número 79 - Bogotá, Quito, March 2012.

⁶⁷ Mendoza Piñeros, A. M. (2012). El desplazamiento forzado en Colombia y la intervención del Estado. *Revista de Economía Institucional, 1st semester 2012.* P. 169-202.

⁶⁸ Serrano, M. E. Evaluando el impacto de intervenciones sobre el desplazamiento forzado interno. Hacia la construcción de un índice de realización de derechos, Bogotá, Consejería en Proyectos-PCS, 2007.

armed groups, in such a way that their illicit crops or routes for drug trafficking⁶⁹ are maintained or extended. It is also known that in areas with a considerable amount of natural resources, and in regions where ongoing setup of big-scale energy projects is taking place, forced displacement is more intense. Such is the case in the Urabá and Urrá Dam regions in the North-west of Colombia,⁷⁰ where higher land concentration and levels of violence are found, as well as lower economic growth and wages.⁷¹

Displaced people usually settle in the main urban centers, leading to an increase in unemployment rates and to an ineffective allocation of resources for poor urban areas,⁷² where people live under precarious conditions, with a quality of life that is similar or worse than those of the poorest populations in receiving areas.⁷³

The Office of the Comptroller General of Colombia found out that the areas where large scale displacement has taken place are also mining activity zones, the poorest regions in the country and lands that had been set aside for agricultural exploitation. Also, the entity stated that after two decades of intense mining activity in the northwest and north of the country (Departments of Antioquia, Cordoba, Cesar and Cordoba) there has been a severe rise in social conflicts that concur with the violent conflicts in high impact mining areas.⁷⁴ **Figure** 3 illustrates this overlap:

⁶⁹ Ibáñez, A. M. y P. Querubín. "Acceso a tierras y desplazamiento forzado en Colombia", Documento CEDE No. 23. 2004.

⁷⁰ Fajardo, D. *Para sembrar la paz hay que aflorar la tierra*, Bogotá, IDEA, Universidad Nacional de Colombia, 2002.

⁷¹ Ibáñez, A. M. El desplazamiento Forzoso en Colombia: un camino sin retorno hacia la pobreza, Bogotá, Ediciones CEDE, Universidad de los Andes, 2008.

⁷² Murad Rivera, R. Estudio sobre la distribución espacial de la población de Colombia, CEPAL, Serie Población y Desarrollo No. 48, 2003.

⁷³ Ibáñez, A. M. y A. Moya. "¿Cómo el desplazamiento forzado deteriora el bienestar de los hogares desplazados? Análisis y determinantes del bienestar en los municipios de recepción", Documento CEDE No. 26, 2006.

⁷⁴ Words from Sandra Morelli, General Comptroller of the Nation. In: http://www.rcnradio.com/noticias/en-mas-del-70-de-colombia-hay-casos-de-desplazamiento-por-lamineria-68799

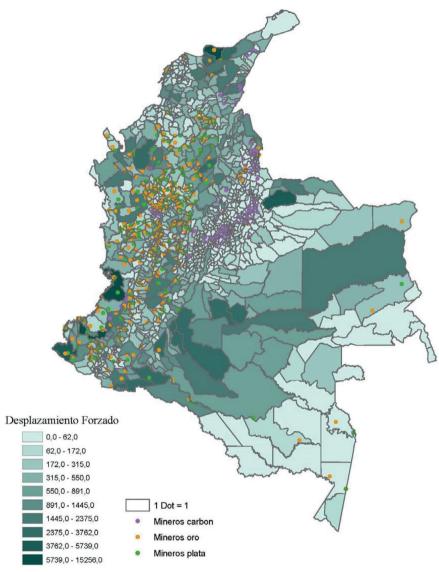


Figure 3. Forced Displacement and mining. Source: Panel CEDE (Center of Economic Development Studies, University of Andes).⁷⁵

⁷⁵ In which: 'desplazamiento forzado': Forced Displacement; 'Mineros Carbón': Coal mines; 'mineros oro': Gold mines; 'Mineros Plata': Silver mines. Taken from: Ana María Ibáñez, Mariana Laverde: Los Municipios Mineros en Colombia: características e impactos sobre el desarrollo http://www1.upme.gov.co/sites/default/files/forum_topic/3655/files/municipios_mineros_colombia_caracteristicas_impactos_sobre_desarrollo.pdf

The study 'Mining municipalities in Colombia: characteristics and impacts on development'⁷⁶ concludes that in mining municipalities, especially those where gold and silver are being exploited, there exists institutional weakness and vulnerable socio-economic conditions; together with the limited presence of State authorities, a high incidence of armed conflicts and isolation from the main productive centers. These are usually zones where multinationals have initiated activities. The results of the study also show that some of these municipalities hold low potential for agricultural production and the land there is concentrated in the hands of a few people or organizations. Some are even environmentally vulnerable given their proximity to forests and areas which have been declared as Natural Parks;⁷⁷ furthermore, their remoteness, the existence of minerals and the scarce presence of authorities, represent very attractive opportunities for illegal armed groups to trigger the informal exploitation of lands.

One of the most affected zones is Bajo Cauca Antioquia, in the northwest of the country, where the conflict stems from gold production in this area. The most affected populations are its indigenous and Afro-Colombian communities, given the dispute of illegal groups over the exploitation of gold in the municipalities of Anori, Caceres, Caucasia, El Bagre, Nechi, Taraza and Zaragoza. The victims are mainly Afro-Colombians or belong to the Embera-Katio and Zenu indigenous communities. Last year only (2013) 607 Zenu people fled El Bagre municipality because of the presence of illegal groups that wanted to control the exploitation of gold in the area. The same thing happened in Tierralta, where 348 indigenous people from the Embera-Katio community left their lands. On the same thing happened in Tierralta, where 348 indigenous people from the Embera-Katio community left their lands.

⁷⁶ Ibídem.

⁷⁷ Ibidem.

⁷⁸ Verdad Abierta. "Los nuevos focos del desplazamiento forzado en Colombia". June 16, 2014. In: http://www.verdadabierta.com/victimas-seccion/desplazados/5361-los-nuevos-focos-del-desplazamiento

⁷⁹ Ibidem.

⁸⁰ Ibidem.

However, the illegal armed groups do not always act on their own; there are several reports of conspiracies between these groups and legal private companies seeking to meet their mining goals. In fact, different social organizations have reported that some multinational companies have funded paramilitary groups in order to 'protect' themselves and displace communities from the territories they want to exploit.⁸¹ This situation was also exposed in the 2011 Consultancy on Human Rights and Displacement report (Codhes) which points out the presence of both, military and paramilitary groups in mining zones: "the armed forces protect private investment and paramilitaries suppress social protest and create displacement".⁸²

The seminar 'Mining, Land and Conflict in Latin America', held by the National University of Colombia (the largest and most important university in the country) exposed that "multinationals tend to appear in places that have previously suffered paramilitary attacks and that these places have seen their population disappeared, assassinated, or displaced". For its part, the National Mining Company Workers Union (Sintraminercol) stated that 87% of displaced people in this organization come from municipalities hosting mining activity, and that 80% of violations to the human rights of its workers occurred in the same areas. 84

In 2011, two massacres were reported in the south of Bolivar, where mining community leaders were tortured and killed, presumably by illegal armed groups who claimed control of some

⁸¹ El Espectador. "Ochenta empresas financiaban a paramilitares del Bloque Norte: Así lo denunció el ex militante, alias 'don Antonio'", February 3, 2010, in: http://www. elespectador. com/noticias/judicial/articulo185699-ochentaempresas-financiaban-paramilitares-del-bloque-norte

⁸² Consultancy on Human Rights and Displacement (CODHES), "¿Consolidación de qué?" Information Bulletin nº 77, February 2011, http://www.codhes.org/index.php?option=com_content&task=view&id=1002

⁸³ Julio Fierro, "La política minera en Colombia," International Seminar on mining, territory and conflict in Latin America, (National University, Bogotá, Colombia), 6 October 2011.

⁸⁴ Sintraminercol, "La violación de los derechos humanos en el país está estrechamente ligada con el modelo económico existente en Colombia," www.acantioquia.org/...foro/EXPOSIC_SINTRAMINERCOL.doc.

of the mining regions.⁸⁵ It is also known that 35 people from the Zaragoza municipality, who worked in the mining industry, had to flee their lands due to threats by paramilitaries,⁸⁶ and 78% of crimes against union leaders occurred in mining-energetic areas.⁸⁷

Coal mining in Cesar as an example of multinational mining companies obtaining profits from the breach of human rights

PAX Netherlands (the Dutch section of Pax Christi International) presented a report to the Dutch Minister of Development Cooperation in June 2014, called *The Dark Side of Coal*, which dealt with breaches of human rights in mining areas between 1996 and 2006 in the department of Cesar in Colombia (North-east). In this region, paramilitaries murdered a total of 3,100 people and drove 55,000 farmers off their land without any type of reparation up to this date. The document also revealed that multinational mining companies were benefiting from these enormous human rights abuses.⁸⁸

The report states that, as a peace movement, PAX investigates 'the impact of mining and naturally places an emphasis on its consequences for the safety and human rights of the civilian population. Of the many human rights violations committed in the Cesar mining region, they concentrated on those categories with the greatest apparent impact: selective killings, massacres, enforced disappearances and forced displacement". The report is also restricted to the apparent involvement of the mining companies Drummond and Prodeco, which

⁸⁵ Notiagen, Colombia, "Dos masacres en el sur de Bolívar, días después de terminar la Segunda Caravana Internacional por la Vida y Contra el Despojo" 20 August 2011. http://notiagen.wordpress.com/2011/08/20/colombia-dos-masacres-en-el-sur-de-bolivar-dias-despues-de-terminar-la-segunda-caravana-internacional-por-la-vida-y-contra-el-despojo/

⁸⁶ Consultancy on Human Rights and Displacement (CODHES), op. Cit. 80.

⁸⁷ Ramírez, Francisco. Gran minería y derechos humanos en Colombia. International Seminar on mining, territory and conflict in Latin America, (National University, Bogotá, Colombia), 6 October 2011.

⁸⁸ Moor, Marianne and Van de Sandt, Joris. The Dark Side of Coal: Paramilitary Violence in the Mining Region of Cesar, Colombia. PAX, The Netherlands. June 2014.

⁸⁹ Ibidem P. 10.

extract coal in this region, in the northeast part of the country, near the border with Venezuela.

The report includes National Police figures revealing that, between 1996 and 2006, 4,948 murders were registered in 14 municipalities in the mining area in the department of Cesar. It also claims that the JAA Front (Juan Andres Alvarez Front, which was part of the largest paramilitary group of the country, the AUC) committed at least 2,600 targeted killings in the Cesar mining region. In terms of whole-scale massacres, they claim that 499 civilians were killed by the JAA Front in the same region. **Figure 4** shows the distribution of these massacres in the region of Cesar:



Figure 4. Distribution of massacres in the mining region of Cesar. Source: PAX. The Dark side of Coal (modified).⁹⁰

On the subject of forced displacement, PAX estimated that approximately 59,000 people were displaced because of violence by the JAA Front in the Cesar mining region between 1998 and 2006, as **Figure 5** depicts.

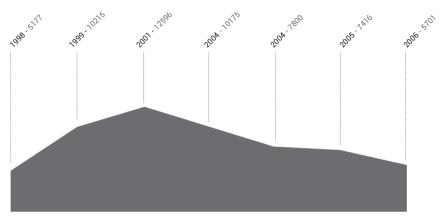


Figure 5. Forced displacements in the Cesar mining region. Source: PAX. The Dark Side of Coal.⁹¹

In addition to these alarming figures, a striking aspect is the fact that PAX pointed at Drummond and Prodeco, two large multinational companies based in the United States and Switzerland respectively, as financiers of the JAA front in the Cesar region. Some crimes against humanity were committed to ensure the protection of these companies and pursue their profitable goals. PAX bases its claims on interviews and testimonies from members of the paramilitary groups (that have now been sentenced for drug trafficking in the US), victims and former official workers of both companies. The report includes revealing testimonies, which expose the transfers of large amounts of money from Drummond and Prodeco to illegal armed groups, and how these companies provided financial assistance for 200 men in the region of Cesar.

⁹¹ Available from: http://paxencolombia.org/wp- content/uploads/2016/01/paxdrummondespv2opmfinalweb.pdf

⁹² Ibidem P. 56.

⁹³ Ibidem P. 57.

Also, in accordance with one of the testimonies of a former constructor in Drummond, the report states that his company provided financial support to the JAA front until mid-2001. After the attack on the Twin Towers in New York City in September that same year, the AUC were labeled a 'terrorist organization' and operations with this illegal armed group turned risky. Nevertheless, it was also argued that from 1997 to mid-2001, the company paid a total of USD 900,000 to the JAA Front.⁹⁴ **Figure 6** represents the presence of guerrillas and paramilitaries in the region from 1999 to 2006.

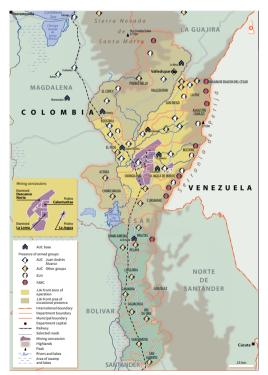


Figure 6. Presence of armed groups in Cesar, period 1999-2006. Source: PAX. The Dark side of Coal (modified).⁹⁵

⁹⁴ Ibidem P. 59.

⁹⁵ Available from: http://paxencolombia.org/mapas/

The PAX report also includes a special chapter that describes how Drummond and Prodeco bought some of the lands formerly inhabited by a forced displaced population. These events took place in the municipality of La Jagua de Ibírico in the department of Cesar, where some politicians and public officials fabricated the purchase of the victims' lands through intermediaries. According to the testimonies of some ex-paramilitaries sentenced in the U.S. 7, once the forced displacement took place, intermediaries bought those lands and sold them to Drummond and Prodeco for coal mining purposes. When the displaced families knew their lands had been sold in 2007, they started the process to be recognized as displaced persons under Law 1448 of 2011 (Victims and Land Restitution Law), and to get their lands back.

Chapter conclusion

After considering the legal framework and the facts and figures presented above, it is evident that there have been multiple violations of human rights by private companies and illegal armed groups in diverse mining areas. On certain occasions, large-scale mining projects involving the interests of multinational companies have led to forced displacement, dispossession, and persecution of leaders, among others. Also, the people that have been the most affected by this phenomenon are mainly peasants, indigenous and Afro-Colombian communities in rural lands with rich natural resources and biodiversity.

The cases mentioned above show a breach of the displaced persons' rights to dignity and physical, mental and moral integrity, liberty and security, life during the displacement, freedom of movement, and to an adequate standard of living, all of which were established in the UN Guiding Principles on Internal Displacement, in the Articles 3, 27 and 32 of the Geneva Convention, 75 of the Additional Protocol I, 4 of

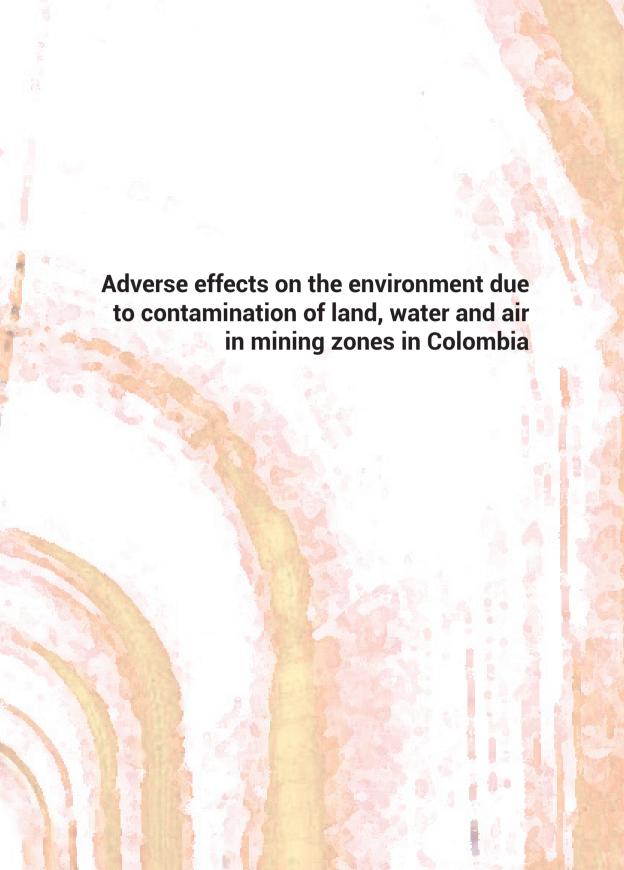
⁹⁶ Ibidem P. 74.

⁹⁷ Ibidem P. 75.

⁹⁸ Ibidem P. 75.

the Additional Protocol II and Articles 1, 4, 5 and 7 of the American Declaration on Human Rights. Moreover, these rights are protected in Articles 11, 12, 13, 24, 25 and 28 of the Colombian Constitution.

The international and local regulations reviewed ensure the state accountability when it comes to protecting displaced persons' human rights and preventing forced displacement. Therefore, the Colombian State is under obligation to take whatever measures are necessary to halt the occurrence of human rights violations according with Principle 3 of the UN Guiding Principles on Internal Displacement, which set forth that "national authorities have the primary duty and responsibility to provide protection and humanitarian assistance to internally displaced persons within their jurisdiction". Also, it's important to highlight that it is the Colombian state's obligation to develop policies and adopt measures to prevent instances of forced displacement occurring in the first place, in accordance with Article 3 of Law 387 of 1997, as well as its primary "responsibility to protect", imposed to all states by the international customary law.



International and local legal framework on the right to the environment

One of the first official statements about the relationship between the quality of the environment and the enjoyment of basic human rights is the 1968 UN General Assembly 2398 (XXII) Resolution. However, the importance of taking into account environmental issues when considering fundamental human rights was only remarked upon in the 1972 Stockholm Declaration. Principle 1 of this international declaration claims that:

Man has the fundamental right to freedom, equality and adequate living conditions, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations. In this respect, policies promoting or perpetuating apartheid, racial segregation, discrimination, colonial and other forms of oppression and foreign domination stand condemned and must be eliminated.¹⁰⁰

Similar international declarations have pointed in the same direction: the 1982 World Charter for Nature reaffirmed the importance of the relationship between human conduct and environmental harm; ¹⁰¹ the 1989 Declaration of the Hague on the Environment recognized "the right to live in dignity in a viable global environment, and the consequent duty of the community of nations vis-á-vis present and future generations to do all that can be done to preserve the quality of the environment"; ¹⁰²Additionally, in 1990, the UN General Assembly

⁹⁹ In the *ratio decidendi* of the mentioned Resolution it can be read that human environment is basic for the "enjoyment of basic human rights, in developing as well as developed countries [...]".

^{100 1972} Stockholm Declaration, Principle 1.

¹⁰¹ UN General Assembly. World Charter for Nature, 48th plenary meeting 28, October 1982.

¹⁰² Declaration of The Hague on the Environment, 11 March 1989, 28 ILM 1308 (1989).

declared that "all individuals are entitled to live in an environment adequate for their health and well-being". 103

The acknowledgement of a link between environmental harm and the enjoyment of human rights by the international community must be seen to have practical consequences within the context of international human rights. These consequences should also take into account the distinction between socio-economic rights and political rights. The former are understood as substantive rights which individuals are entitled to, and the later, as "due process" rights. This creates new obligations for the international community and for domestic governments.

At this point, the establishment of a regulatory connection between environmental and human rights poses the question of which human rights are endangered when the environment is harmed. With regard to this matter, Simon Caney discussed the concept of human rights from an environmental perspective and concluded that three fundamental human rights are jeopardized: "the human right to life, the human right to health; and the human right to subsistence", among others. 105

Regarding the right to life, the International Covenant on Civil and Political Rights states that "every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life". The right to life can be endangered in so far as human life takes place within the environment and severe illnesses, possibly leading to death, may stem from the environmental conditions

¹⁰³ UN General Assembly, Resolution 45/94 (1990).

¹⁰⁴ Philippe Sands, Jaqueline Peel, Adriana Fabra and Ruth MacKenzie (eds.) Principles of International Environmental Law, third edition, Cambridge University Press, 2012. P. 781.

¹⁰⁵ Caney, Simon, 'Climate Change, Human Rights and Moral Thresholds,' in Stephen Humphreys (ed.), in *Human Rights and Climate Change*. Cambridge: Cambridge University Press, 2010, pp.75.

¹⁰⁶ Article 6.1 of the International Covenant on Civil and Political Rights.

in which a community is established. 107 Also, the occurrence of natural disasters may lead to direct loss of life due to the "increasing frequency of severe weather events, such as tornadoes, hurricanes, storm surges and floods". 108

The right to health has been understood as "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health", 109 and as stated above, it has been identified that adverse conditions in the environment may lead to health diseases. In fact, unfavorable conditions in the environment may increase the occurrence of diseases like malaria, diarrhea, dengue fever and cardio respiratory morbidity. 110

The right to subsistence is affected by the environment as well, as the Universal Declaration of Human Rights declares: "everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care [...]".¹¹¹ For his part, Caney defines this right as "all persons have a human right that other people do not act so as to deprive them of the means of subsistence".¹¹² The breach of the right to a standard of living, or just mere subsistence, may be directly represented by the negative impact of anthropogenic interference in the environment. Pollution, for instance, may lead to endangered food production, loss of agricultural lands, contamination of hydric sources, or crop failure.

During the conference that took place at the Faculty of Law at the University of Oslo on 4th of November 2013, Oliver C. Ruppel explained

¹⁰⁷ Temelko Risteski, Elena Todorova, Sejdefa Džafče, Anita Gligorova. The Right to a Healthy Climate as a Function of the Right to Life. Journal of Economic Development, Environment and People Volume 1, Issue 1, 2012. In: http://jedep.spiruharet.ro/RePEc/sph/rjedep/Rev1_3TheRight.pdf

¹⁰⁸ Ibidem Caney p.77.

¹⁰⁹ Article 12.1 in International Covenant on Economic, Social and Cultural Rights.

¹¹⁰ To a deeper view on how this right is considered a human right see on Caney: http://www.esrc.ac.uk/Image/Climate_Change_Human_Rights_and_Moral_Threshholds_tcm11-9417.

¹¹¹ Article 25.1 Universal Declaration of Human Rights.

¹¹² Ibid Caney, Op. cit. 100 P. 10.

that along with the basic human rights mentioned above, harm to the environment may also be responsible for endangering and breaching several rights of first, second and third generations of families. Rupper also makes this point in his books, *Environmental Law and Policy in Namibia: Towards Making Africa the Tree of Life* and *Constitutional Democracy in Namibia: A Critical Analysis after Two Decades*.

Ruppel lists different rights and explains how they are endangered: The right to life is linked to any event that leads to the loss of lives; the right to health is endangered because pollution of natural resources may lead to illness and affect the right to access clean water; the right to food is potentially endangered because environmental disruption can endanger a community's physical and economic access to adequate food; the right to development, because environmentally destructive economic progress halts long-term societal progress; the right to property, in the case of people living on islands and coastal areas losing their property and lands due to rising of sea levels; the right to shelter and housing, that takes place when environmental degradation displaces individuals and communities; the right to work, affected when the economy of a community depends on the environment e.g. fishing; and the rights of minorities that deserve special treatment, namely, indigenous people, women and children, whose rights to culture, family life, equity and non-discrimination have been progressively recognized by the international community. 113

In fact, bearing in mind the importance of the connection between the environment and the rights of a generation, one can find a diverse range of international legal norms devised for their protection. Indeed, the preamble of the Aarhus Convention (the Convention on Access to Information, Public Participation in Decision-Making and Access to

Ruppel, Oliver C., (2013), Human Rights and the Environment, in: Ruppel, Oliver C. and Ruppel-Schlichting, Katharina (Eds), Environmental Law and Policy in Namibia – Towards Making Africa the Tree of Life, Windhoek & Essen, Orumbonde Press & Welwitschia Verlag, P. 401-420; and Ruppel, Oliver C., (2010), Environmental Rights and Justice under the Namibian Constitution, in: Bösl, Anton, Horn, Nico and Du Pisani, André, Constitutional Democracy in Namibia – A Critical Analysis After Two Decades, Windhoek, Macmillan Education Namibia, 323-360.

Justice in Environmental Matters) remarks on the importance of the right to live in an adequate environment that provides all needs related to a person's health and well-being. It is stated that:

Every person has the right to live in an environment adequate to his or her health and well-being, and has a duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations.

In the same vein, the International Covenant on Economic, Social and Cultural Rights deals with certain rights directly linked to the environment, such as the right to safe and healthy working conditions in Article 7b; the rights of children and young persons to be free from work which is harmful to their health in Article 10-3; and the right to health in Article 12, which calls on State parties to take steps towards "the improvement of all aspects of environmental and industrial hygiene [...]".

Also, in 2003, the UN Committee on Economic, Social and Cultural Rights concluded in General Comment 15, adopted at the twenty-ninth session of the committee, that there is a human right to access to water implied in Articles 11 and 12 of the ICESCR. In turn, these define the right to livelihood as one that includes adequate food, clothing and housing. 114

Furthermore, Article 12 (2-h) of the 1979 Convention on the Elimination of All Forms of Discrimination against Women says that states have the obligation to take measures prohibiting discrimination against women, particularly in rural areas, to ensure that women "enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply". Meanwhile, Article 24 (2-c) of the Convention on the Rights of the Child sets forth that "parties shall take appropriate measures to combat disease and malnutrition through the

¹¹⁴ UN Committee on Economic, Social and Cultural Rights. General Comment No. 15: The Right to Water. Twenty-Ninth Session of the Committee on Economic, Social and Cultural Rights, on 20 January 2003. In: http://www.refworld.org/publisher,CESCR,GENERAL,4538838d11,0. html

provision of adequate nutritious foods and clean drinking water, taking into consideration the dangers and risks of environmental pollution". When it comes to indigenous peoples, the United Nations Declaration on the Rights of Indigenous Peoples in Article 29 (1) establishes that "Indigenous peoples have the right to the conservation and protection of their environment and the productive capacity of their lands or territories and resources".

It is also important to mention the principles of the international environmental law, established by customary law, that demand special attention to the environment; some economic activities may harm it, and hence threaten the different rights mentioned above. In fact, in the *Gabcikovo-Nagymaros Project* case, the International Court of Justice mentioned the principle of sustainable development, and referred to the obligation of all states to pursue economic development bearing in mind the protection of the environment. In the words of the Court:

The Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage.

Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind – for present and future generations – of the pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States' contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development.¹¹⁵

¹¹⁵ International Court of Justice, The Gabcikovo-Nagymaros Project Case. Judgment of 25 September 1997, Hungary vs Slovakia.

There are other relevant principles, such as the Precautionary Principle set forth in Article 15 of *the Rio Declaration*, according to which "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental damage". Likewise, the principle of *Permanent Sovereignty over Natural Resources*, whereby the exercise of this right entails the obligation of states to consider, in all cases, national development and the well-being of its people. For its part, the *Preventive Action Principle* indicates that actions should be taken in order to prevent environmental harm so that any type of consequential damage is avoided. 117

In Colombia's case, these principles and well-founded rights have been integrated into domestic legislation, and the importance given to the environment, as well as to the protection of the different rights associated to it, made part of the 1991 National Constitution. Article 79 of the National Constitution states that:

Everyone has the right to enjoy a healthy environment. The Law will ensure the community participates in decisions that may affect it. It is the duty of the State to protect the diversity and integrity of the environment, preserve areas of special ecological importance and promote education to achieve these ends (emphasis added).

This constitutional rule must be interpreted in connection with the fundamental rights to life and health, since these can be only guaranteed under proper conditions if life is to be enjoyed with a minimum standard of quality.

Moreover, in Article 8 of the National Constitution, the environment is considered common property and it reminds the state and the people of their duty to protect the cultural and natural wealth. It establishes

¹¹⁶ United Nations, Consideration I (1) in the Resolution 1803/XVII, 1962. In: http://www.ilsa.org/jessup/jessup10/basicmats/ga1803.pdf

¹¹⁷ Philippe Sands, Jaqueline Peel, Adriana Fabra and Ruth MacKenzie (eds.) Principles of International Environmental Law, third edition, Cambridge University Press, 2012. P. 201.

that "property is a social function that implies obligations and, as such, the ecological function is inherent". Article 63 conveys the same idea, when observing that "the public goods, natural parks, communal lands of ethnic groups, *resguardo* lands, the archaeological heritage of the Nation and other property determined by law, are inalienable and indefeasible".

The Constitution also deals with sustainable development, understood as the path towards economic growth as well as the improvement of quality of life and welfare, without draining the renewable natural resources on which it is based, thereby obstructing the right of future generations to use them to meet their own needs, or damaging the environment.¹¹⁸ In this respect, The National Constitution establishes in Article 80 that:

The State will plan the management and use of natural resources to ensure their sustainable development, preservation, restoration or replacement. It must also prevent and control environmental deterioration factors, impose legal sanctions and demand compensation for damages. Additionally, it will cooperate with other nations in protecting ecosystems located in border areas.

As can be observed, environmental legislation has broadly developed in the last few decades, at both international and local levels since diverse legal mechanisms have established the importance of protecting the environment and its direct relation with humans. All things considered, the disruption of the environment may lead to a breach of different human rights, including those relating to the second and third generations of communities. It is also worth highlighting the role of the state in the protection of the environment and prevention of any harm coming to it, as well as in its obligation to guarantee the enjoyment of all people's environmental rights now and in the

¹¹⁸ Definition included in the guide of the Colombian Ministry of Mines 'UPME' (Unity for the mining and energy planation). In: http://www1.upme.gov.co

future. As stated previously, the liability of the state when it comes to environmental matters has been extensively set forth through international mechanisms and local regulations, which is evidenced, for instance, in Article 79 of the Colombian National Constitution.

Most damaging environmental impacts of mining activity in Colombia: open-pit coal mining and extraction of gold using cyanide

Despite legal mechanisms, which aim to ensure environmental rights for the Colombian population, the reality is still a long way from the goals that the legal framework establishes in accordance with the 1991 National Constituent Assembly.

In fact, in Colombian territory, the degradation of the environment caused by mining activities is profoundly evident. The extraction of minerals, in this case gold, requires the use of highly toxic chemicals such as cyanide. This compound pollutes hydric resources and lands, and affects wildlife as well as the communities who have settled in those areas.

For instance, it was predicted that the gold extraction project *Angostura* would demand the use of 20 tons of cyanide every day for 15 years, but the project was not granted the appropriate license for its work. Besides, the development of large-scale mining projects sometimes require the course of rivers to be redirected through the use of dynamite. This process is extremely invasive as it alters the local geography and interferes with human and animal habitats. The construction of massive infrastructure to support these projects is common as well, with the creation of buildings and railroad tracks in the middle of natural parks to enable transportation of minerals to ports. 120

¹¹⁹ Vicente, A., Neil, M., James, D. S., Briss, M., Lefebvre, S., & Bauer, B. (2011a). Colombia: Minería en Colombia ; a qué precio? PBI Colombia. P.43.

¹²⁰ Ibidem.

The use of cyanide and mercury to extract gold is common among formal mining companies and thousands of informal miners, who pollute the water with these heavy metals. However, hydric resources are not the only ones that are negatively impacted; the vapor that results from burning these metals to extract the gold turns the air into a toxic amalgam.

The Colombian Ombudsman's Office found that the level of mercury in the air in some mining municipalities like Segovia, Zaragoza and Remedios (in the Department of Antioquia, west of Colombia) may be 1000 times higher than the permitted safe level. In the municipality of Remedios alone, 15 people have requested kidney transplants because of health issues directly related to breathing air that has been contaminated with mercury.¹²¹

One of the conclusions in the study *Mining Municipalities in Colombia: Characteristics and Impacts on Development* was that the mortality rate in children under the ages of one and four is lower in the municipalities where there is no mining activity than in those where gold and silver have been extracted; in municipalities where there are coal mining activities, this rate is even higher.¹²² Another finding of the study is that municipalities where mining activities are common are considered to be significantly more environmentally vulnerable than other municipalities where this type of activity is not developed. Interestingly, it was found that the probability of a municipality developing mining activities is proportional to its distance from natural parks and forest reserves. This latter fact sets off alarm bells about the probability of mining practices being carried out in protected areas, where such activities are forbidden by law.¹²³ **Figure 7** shows

¹²¹ Ronderos, María Teresa. La fiebre minera se apoderó de Colombia. CIPER (Centro de Investigación Periodística). September 5, 2001. In: http://ciperchile.cl/2011/09/05/lafiebre-minera-se-apodero-de-colombia/

¹²² Ibáñez, Ana María and Laverde, Mariana: Los Municipios Mineros en Colombia: características e impactos sobre el desarrollo P.9 In: http://www1.upme.gov.co/sites/default/files/forum_topic/3655/files/municipios_mineros_colombia_caracteristicas_impactos_sobre_desarrollo.pdf

¹²³ Ibidem p. 15.

the current overlap between mining titles, mining applications and protected areas in Colombia.

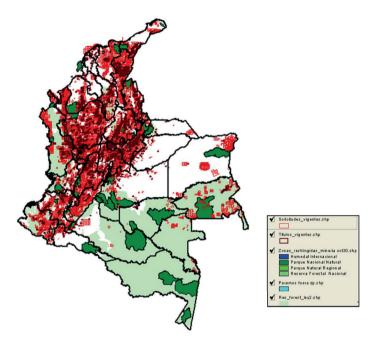


Figure 7. Protected areas, mining titles and applications 2013¹²⁴. Source: Semillas Group. 125

The potential harm to the communities' right to a reasonable quality of life is one of the main grievances that this type of activity creates. People's vital needs, which used to be met by production of food from the land, is today threatened by the new application of natural resources. This disrespect of protected land has even led to archaeological looting taking place, constituting an assault on the memory and history of the

¹²⁴ Light red: Current mining applications. Dark red: Mining titles granted. Green: Natural parks and forest reserve.

¹²⁵ Available from: http://www.noalamina.org/latinoamerica/colombia/item/12466-investigacion-conflictos-asociados-a-la-gran-mineria-en-antioquia

various regions.¹²⁶ Furthermore, growing environmental degradation has become evident in the extinction of various species of fish, water pollution, deforestation and the deaths of animals.

Environmental harm is also the consequence of administrative negligence by local governments, which have breached the regulation that commands municipalities to invest at least 17% of their mining royalties in the preservation and improvement of the environment. Records show that between 2004 and 2009, just 3.2% of these royalties were allocated towards the implementation of this legal obligation. Even while energy-mining activities have widely contributed to total national production, the environmental budget has reduced every year in relation to the GDP.¹²⁷

Breaches of human rights and damage to the environment caused by mining activities were officially detected by the authorities in 2010, due to multiple allegations of corruption and scandals concerning mining titles. In February 2011, the Colombian government was compelled to stop granting mining titles until a normal system of operation was restored. The allegations came from the General Comptroller's Office, which reported that 12,997 applications for mining titles had been granted between 2010 and 2011, instead of the 6,653 officially reported, and that 19,629 mining titles were still pending approval at the National Mining Agency (ANM). It was added that at the date of the report's publication, a "reliable mining cadaster" had not been set, yet titles had been regularly issued. To make matters worse, this happened in forest reserves and protected areas, the damage of which would represent the destruction of "the ecological heritage of the country", plus multiple social breaches of "international conventions on the environment". 128

¹²⁶ Humanidad Vigente. "Los estragos psicosociales de la locomotora minero energética en el Huila". October 13, 2014. In: http://www.humanidadvigente.net/territorios/huila/770-mapa-huila.html

¹²⁷ Ibidem.

¹²⁸ El Tiempo. "Drawing Justice". 2013.

Bearing these facts in mind, open-pit coal mining and the extraction of gold with cyanide will be detailed next as the two main threats to the environment when it comes to coal and mining activities in Colombia.

The environmental impact of open-pit coal mining

Mining projects generally involve important modifications to the territory in which they take place. These modifications are related to mineral extraction practices such as acquisition of lands and the building of tracks to access mines to transport minerals, machinery and equipment. Such activities may have an impact on a number of variables, namely, the physical environment (air, water, soil, climate geology and geomorphology), the biota (fauna, ecological balance, wildlife and vegetation; the perceptual landscape or environment) and the socio-economic environment (economy, population, infrastructure, land use and social and cultural heritage). See **Figure 8**.



Figure 8. El Cerrejón mine in La Guajira, Colombia. The world's biggest open-pit coal mine. Photograph: Oliver Balch in The Guardian UK.¹²⁹

¹²⁹ Available from: https://www.theguardian.com/sustainable-business/cerrejon-mine-colombia-human-rights

According to Espinosa and Toro, one of the main environmental effects of open-pit mining is the increased susceptibility to erosion in the lands where exploitation takes place, since it involves the removal of all soil cover and direct exposure of the land. This was the conclusion of a study conducted before mining projects were initiated in the municipality of Anorí (department of Antioquia, west of Colombia) in order to assess their potential impact. The model applied proved the susceptibility of the soil to erosion.

Similarly, and in accordance with a study conducted by the Costa Rican ecological association *Friends of the Earth*, open-pit mining activities can greatly affect the environment in the following ways:¹³¹

- **The surface:** open-pit mining devastates the surface, severely alters the morphology of the terrain, produces a large amount of waste material, leads to the destruction of cultivated areas and other surface assets, and can alter water courses.
- The surroundings: open-pit mining radically changes the environment, causing landscapes to lose their beauty and diversity. Noise generated by certain processes, such as crushing, grinding, power generation and transport, as well as loading and unloading of minerals and waste materials from the mine and the mills also degrades the environment.
- **The air:** air can be contaminated with solid impurities, such as dust and toxic fuels. These impurities can penetrate the lungs of both workers at the mine and people living in the vicinity during various stages of the extraction process. Air quality can also be compromised by cyanide, mercury, sulfur and dioxide vapors

¹³⁰ Espinosa, D. de J., & Toro, L. J. (2012). Evaluación de la susceptibilidad a la erosión por el cambio de cobertura debido a la minería, en el Municipio de Anorí, Antioquia, Colombia. Revista Gestión y Ambiente.

¹³¹ Asociación Ecológica Costarricense - Amigos de la Tierra. (2007, octubre 3). Minería de oro a cielo abierto y sus impactos ambientales. Publication in: http://www.noalamina.org

or gases from incomplete combustion processes or fumes from ponds where decaying organic matter does not circulate.

- **Surface waters:** thin solid waste from the mining areas can elevate the sediment layer in the nearby rivers. The oxidization in ponds or dams that have been poorly built or maintained or that have been improperly handled can may lead to the contamination of surface waters. Another damaging factor may be the storage or transportation of supplies such as fuel, lubricants, chemical reagents and liquid waste.
- Groundwater: used oil, mineral salts from batteries, cyanide, mercury, sulfur dioxide or rainwater from solid waste treatment dumps may reach the groundwater. In addition, there may be a decrease in the levels of groundwater when these become a source of fresh water for mineral processing operations.
- Soils: open-pit mining involves removing soil in the area of exploitation, causing surrounding lands to dry and to lose their agricultural potential. It also tends to cause the formation of sinkholes and swamps when the groundwater level rises. Another consequence is soil degradation because of the accumulation of excess matter.
- **Flora:** open-pit mining entails removal of vegetation around mining operations and partial destruction or modification of flora in the surroundings due to consequent changes in the phreatic level. It can also affect any nearby forests, which can be destroyed by the process of exploitation.
- Wildlife: wildlife is disturbed and/or driven away by noise and the
 pollution of air and water, and by increased levels of sediment in
 rivers. In addition, the erosion of barren waste piles and poisoning

reagents contained in residual water from the area of operation may particularly affect aquatic life.

- **People:** open-pit mining can cause social conflicts concerning land use rights, since there could be an uncontrolled emergence of human settlements and destruction of areas with touristic potential. It can also influence the work of fishermen and farmers affected by poisoning or changes in the course of rivers due to their elevated levels of sedimentation. Furthermore, this type of mining can cause a negative economic impact due to the loss of future economic opportunities.
- **Microclimate**: open-pit mining can cause changes in microclimate and multiplication of pathogens in puddles and stagnant waters.
- **Landscapes:** open-pit mining leaves deep craters in the landscape. Their removal may involve such exorbitant cost that may prevent the exploitation itself.

Studies about open-pit mining, have been conducted in England and the United States, with the same conclusions as those presented here. In fact, Michael Hendryx, Ph.D., at the Institute for Health Policy Research from West Virginia University, argued in his studies of chronic diseases related to pollution in coal mines, that the larger the coal production the higher the risk of nearby communities getting lung, heart or kidney diseases. In his study, Hendryx examined 16,400 people that lived in proximity to coal mines and concluded that they are at 64% more risk than people who live outside these communities, of getting obstructive lung diseases, which may result in pulmonary tissue problems, physical malfunctions, changes in lung shape and even irreparable damage of the organ. ¹³²

¹³² West Virginia University Health Sciences Center (2008, March 27). Chronic Illness Linked To Coal-mining Pollution, Study Shows. Science Daily. Retrieved December 10, 2009, from http://www.sciencedaily.com/releases/2008/03/080326201751.htm

These impacts are not only academic or scientific matters, but are part of the daily Colombian mining context and are clearly witnessed in the northern part of the country, in the department of La Guajira, where the biggest open-pit coal mine in the world is located. Its name is El Cerrejón.

Gaining profits from the production of coal in La Guajira: at what cost?

In all of the communities that DanWatch has visited in La Guajira [northern part of Colombia], pollution from mining has resulted in contaminated drinking water, headaches, rashes and lung problems for the inhabitants, and when it rains it smells of sulphur. Earlier the inhabitants would use their traditional medicine plants to fight diseases, but in fear that the plants will make them even more ill, they have stopped using them.¹³³

This is one of the observations that Danwatch – a Danish corporate watchdog group that investigates and monitors companies' impact on humans and the environment globally – pointed out in the report *Curse of Coal: Our coal consumption causes diseases, pollution and poverty in Colombia.*

The report was initially published by DanWatch in Denmark under the name of *Kullets Forbandelse*. The report focuses on the activities of the Danish *DONG Energy* and the Swedish company *Vattenfall*, which are two of the main importers of coal produced in the El Cerrejón mine in Colombia.

El Cerrejón was funded in the early eighties as a joint venture between the Colombian company *Carbones de Colombia S.A.* (Carbocol) and International Resources Incorporated (Intercor), a subsidiary of Exxon. Later, in 1999, Carbocol sold its share of El Cerrejón to a conglomerate of companies including Anglo American, BHP Billiton and Glencore. Later in 2002, Exxon followed suit and sold its share to

¹³³ Rømer Adamsen, Dennis-Poulsen, Anne Sofie - Urban Swart, Maren. Curse of Coal: Our coal consumption causes diseases, pollution, and poverty in Colombia. DanWatch May 2010.

the same conglomerate. As a result of this, the tripartite consortium got 100% of the El Cerrejón mine. In 2006, Glencore sold its shares to Xstrata. 134

El Cerrejón holds the title of the world's largest open-pit mine and produces over 30 million tons of coal annually. 135 It is in the department of La Guajira, in the north-eastern part of Colombia, and has a mining area of 150 square kilometers. 136

It is supposed that the policies of the current government, regarding the extraction of gold in La Guajira, will stimulate development and boost the economy of the region and its inhabitants. However, despite the earnings of the El Cerrejón conglomerate from mining activities in the area, and the taxes and royalties paid to the local administration, the truth is that the typical environmental risks of open-pit mines have caused diseases to workers, local communities and indigenous people. Not to mention the social issues that commonly arise from these type of activities, as The DanWatch report describes:

Danish coal consumption has thus been contributing to the Wayüu indigenous community and other local people being driven out, forcefully relocated, losing access to land, water, hunting grounds, schooling, infrastructure and they have been living with heavily polluted air and water. In addition, the work in the mine makes the workers sick, without the mining company acknowledging that fact.¹³⁷

It is also known that the workers live in poor conditions, and by the time the DanWatch report was published, 900 workers were sick because of pollution in the mine and lack of safe working conditions. ¹³⁸ In fact, the most common diseases were related to the high level of vibration resulting from operation of heavy machinery, as well as poisoning due

¹³⁴ Ibidem P. 11.

¹³⁵ Ibidem P. 13.

¹³⁶ Ibidem P. 12.

¹³⁷ Ibidem P. 6.

¹³⁸ Ibidem P. 12.

to handling quantities of chemicals over the permitted limits. Certain substances cause an increase in levels of lead in the blood, hydrocarbon in the urine, and severe lung diseases that on some occasions have led to death.¹³⁹

Even if El Cerrejón had been reluctant to admit the poor conditions that mine workers are subjected to, research conducted in October 2007, concluded undeniably that workers are in fact exposed to high levels of chemical fumes and inappropriate contact with chemicals used in the extraction of coal. One of the findings of this research was:

Benzene and dichloromethane exceed many times the maximum permitted concentration for each chemical (...). Given the elevated concentrations of Benzene and Dichloromethane adverse effects to the health of the mine workers could be experienced.¹⁴⁰

It was also pointed out that the lungs, lymph and bladder may be affected due to contact with benzene, which may even lead to death. ¹⁴¹ But despite this, contact with chemicals is not the only cause of illness among workers in the mine. The most common diseases are developed as a result of the inhalation of coal dust that emerges from the extraction process; although such dust directly affects the workers at El Cerrejón, it is also the main cause of illness among the communities and population that live around the extraction areas.

In fact, on a daily basis the inhabitants of nearby areas have to live with the consequences of mining. After the collection of some samples from people in the area, it is evident how pollution from the mine affects the health of these communities:

"The Contamination from the port is awful [...] when it's really windy and you eat, your plate gets covered with coal dust". "The vegetation is not as

¹³⁹ Ibidem P. 12.

¹⁴⁰ Ibidem. P 13.

¹⁴¹ Ibidem P. 9.

¹⁴² Ibidem P. 9 [41].

vigorous as earlier, the animals are all contaminated and the inhabitants experience a hefty reduction in their health"; Women have suffered sterility, and the inhabitants have had eye and lung problems. Sometimes it feels like a rash or itching. When the pores open, the dust enters and that causes an inner scratchy, stingy sensation. A lot of communities suffer that. Also, there's like a flu, a constant coughing, that comes from the dust. 143,144

While all of these repercussions gravely affect the communities in La Guajira, the detriment to the quality of life of Wayüu indigenous communities, due to pollution from El Cerrejón is the most visible.

It can be stated then, that open-pit mining in La Guajira has brought about many undesirable side effects to the inhabitants of this ore-rich territory, who have had to face the daily risk of living in a highly polluted area, where the extraction of coal contaminates the local environment to levels that endanger the health of the local population and workers at the mine. The El Cerrejón case is then a perfect example of how open-pit mining and coal extraction have a profound environmental impact on the inhabitants and biodiversity surrounding the extraction areas.

Environmental damage due to the use of cyanide for the exploitation of gold

Mining by cyanide leaching can be conducted in two ways, *closed* or *open* depending on the use of the cyanide solution system. In an open system, cyanide is diluted and the "sterile" solution that remains after gold has been recovered is discharged into the environment to fulfil applicable water quality standards for cyanide concentrations. In a closed system, the "sterile" cyanide solution is reused to minimize the need to introduce more cyanide, in order to comply with the

¹⁴³ Ibidem P. 9 [42].

¹⁴⁴ Ibidem P. 9.

environmental standards which may be applicable at the mine site¹⁴⁵ (Figure 9).



Figure 9. Cajamarca, Tolima. Explorations being carried out by Anglogold Ashanti where La *Colosa* gold-mine will take place. Photograph: The Prisma: The Multicultural Newspaper. 146

Mining operations that use cyanide extraction technology have a dramatic effect on the environment, and in many cases, can be considered environmental disasters. However, according to the DuPont Corporation (cited by Alberswerth) it is economically feasible to extract gold using cyanide with just 0.01 ounces of gold per ton of mineral, thereby minimizing the environmental impact. This technology has come to replace gold recovery by amalgamation with

¹⁴⁵ Asociación Ecológica Costarricense - Amigos de la Tierra. (2007, octubre 3). Minería de oro a cielo abierto y sus impactos ambientales. Publication in: http://www.noalamina.org

¹⁴⁶ Available from: http://agenciadenoticias.unal.edu.co/detalle/article/cajamarca-presionada-a-tener-mineria-a-cielo-abierto.html

mercury, which is an inefficient process that only allows 60% of the ore to be recovered, in comparison with the more than 97% that it is possible to recover with cyanide. Amalgamation is the process by which the mineral is bound to the substance used, in this case mercury or cyanide, for the purpose of separating the mineral from the rest of the material.¹⁴⁷

One of the primary concerns of the mines where leach extraction is used is restraining the use of this substance due to the high toxicity and natural reactivity of cyanide and its adverse effects on fish, wildlife and humans.

According to the Costa Rican ecological association *Friends of the Earth, as* quoted above, and the *International Cyanide Management Code*¹⁴⁸, cyanide is extremely toxic to any type of living form, which obviously includes plants and animals. Cyanide spills could kill vegetation and impact photosynthesis and the reproductive capacity of plants. As for animals, cyanide can be absorbed through the skin, ingested or inhaled. A concentration in the air of 200 parts per million of hydrogen cyanide is lethal to animals, while a concentration as low as 0.1 milligrams per liter is lethal to sensitive aquatic species. Sublethal concentrations also affect the reproductive systems of both animals and plants.

If cyanide is ingested, the lethal dose for humans is 1 to 3 mg/kg of body weight, if it is absorbed through the skin the lethal dose is 100 to 300 mg/kg, and if inhaled it is lethal at 100 to 300 ppm. This means that a portion of cyanide smaller than a grain of rice would be enough to kill an adult. Long-term exposure to sublethal doses may cause headaches, loss of appetite, weakness, nausea, dizziness and irritation of the eyes and respiratory system. ¹⁵⁰

¹⁴⁷ Ibidem.

¹⁴⁸ International Cyanide Management Code'. In: http://www.cyanidecode.org/cyanide-facts/environmental-health-effects

¹⁴⁹ Asociación Ecológica Costarricense - Amigos de la Tierra Op Cit. 124.

¹⁵⁰ Ibidem.

This compound should then be very carefully handled in order to prevent it from having harmful effects on workers. Still, miners often have contact with cyanide, especially during preparation of the cyanide solution and the recovery of gold. Cyanide dust and fumes and the skin coming into contact with the solution, represent great risks for the workers.¹⁵¹

The impact of extraction with cyanide on wildlife and water has been highlighted by the National Wildlife Federation of the United States. They have stated that when millions of tons of ore are extracted in open-pit mines, and subsequently removed and treated with millions of gallons of cyanide solution, it represents a huge danger for natural habitats and watersheds. One of the most ambitious gold mining projects in Colombia, *La Colosa*, may be considered an example of how mining with cyanide has a far reaching negative impact for the environment, as described below.

Potential environmental tragedy in Tolima: La Colosa

Anglogold Ashanti (AGA) is a mining company based in South Africa, which owns several mines across the globe and has the biggest mining operation in Colombia. In 2003, Ashanti Gold Fields, initially based in Ghana, was merged with AngloGold to create the company that exists now. Its operations started in South Africa, where it was subject to scrutiny over controversies and accusations related to the breach of human rights and damage to the environment. Later, it expanded its operations to other countries.¹⁵³

AGA also operates in Chile, in the area known as El Salar de Huasco, where 60% of the water supply for the whole region goes to mining activities, specifically to the *Quebrada Blanca*, *Cerro Colorado*

¹⁵¹ Ibidem.

¹⁵² Cyanide Leach Mining Packet. Mineral Policy Center Compiled August 2000. In: http://www.earthworksaction.org/files/publications/Cyanide_Leach_Packet.pdf

¹⁵³ Rodríguez Maldonado, Tatiana and Urrea, Danilo. Agua o minería un debate nacional. CENSAT Agua viva. Bogotá, Colombia, 2011.

and *Doña Inés de Collahuasi* mines. The issues that AGA has faced in its operations have arisen from the lack of water supply for inhabitants of the Chilean towns of Iquique, Huara, Pica and Pozo Almonte.¹⁵⁴

In Colombia, AGA has an ambitious project located in the municipality of Cajarmarca, in the department of Tolima. Since 2003, AGA has been planning the construction of a huge mining complex, with the capacity for 150 workers, in an area of 17.000 m² at two sites: *Belgica* and *La Colosa*. It has been predicted that these two sites will not be adjacent, which represents a threat for flora and wildlife across an area of 1,7 hectares. It has also been announced that important hydric resources will be affected, such as the *Coello* River, an indispensable source of water for most of the agricultural activities in this zone. 155 In fact, Coello River is a hydric complex that supplies water to more than 4 million people in the center of the country and is at risk of contamination as a result of discarded cyanide that is used in the extraction of gold in the area. 156 In the report Water or Mining produced by the Non-Governmental Organization Censat, the exploitation of minerals in Cajamarca was labeled 'an environmental catastrophe'. This may be understood as a breach of the inhabitants' right to access clean water.

In addition to these serious predictions about their future activities, AGA has already been accused of breaching Colombian Law 2 of 1959, after carrying out unauthorized mining explorations in forest reserves. As a matter of fact, in February 2008, the regional environmental authority *Cortolima* halted the exploration after discovering that AGA was drilling in areas of protected forest reserve, without the

¹⁵⁴ Ibidem.

¹⁵⁵ Idárraga Franco, Andrés. "Exploración en La Colosa, entre ingenuidades e insinuaciones" http://www.censat.org/articulos/10024-analisis/481-Exploracion-en-La-Colosa-entre-ingenuidades-e-insinuaciones

¹⁵⁶ Rodríguez, Guadalupe. "Rebelión contra la minería de oro en Colombia", Otramerica, 10 july 2011, http://otramerica.com/temas/rebelion-contra-lamineria-del-oro-en-colombia/410.

¹⁵⁷ Rodríguez Maldonado, Tatiana and Urrea, Danilo Op. Cit. 145. P. 22.

corresponding environmental licenses.¹⁵⁸ In 2009, this decision was seconded by the National Ministry of Environment, which started legal proceedings against AGA through Resolution 785 of 2009, citing the breach of national and local environmental regulations.

The forest reserve area that concerns the authorities is considered a *paramo*. This type of land is fundamental in the supply of fresh water to millions of people in the center of the country. Nonetheless AGA has already started drilling in areas above the elevation threshold of where the páramo starts, that is 3200 meters above sea level.¹⁵⁹

The London Mining Network is an alliance of 30 organizations that have similar concerns about AGA's practices and work in support of communities around the world who are badly affected by mining. The Colombia Solidarity Campaign is a UK based organization that campaigns for a socially just and sustainable peace in Colombia and opposes foreign military intervention. In 2013, one of its members of published the report *La Colosa: A Death Foretold, an Alternative Report about the AngloGold Ashanti Gold Mining Project in Cajamarca, Tolima, Colombia.* It describes how, during the life of a mine, approximately 100 million tons of rock are removed, to later be dumped in nearby valleys. This means there are highs risks of acid mine drainage of surface and underground water, as a result of the nature of the chemicals used for extraction, particularly cyanide. As described, the La Colosa project is an example of the type of environmental damage that large-scale mining projects may cause.

Extensive social problems are then inevitable, with all the mining issues that Africa experienced in the past now being faced in Latin America. Considering the background of AGA's projects in Africa and Chile, the breach of important environmental laws in Colombia now

¹⁵⁸ Colombia Solidarity Campaign. 'La Colosa: A Death Foretold. Alternative Report about the AngloGold Ashanti Gold Mining Project in Cajamarca, Tolima, Colombia'. London Mining Network, 2013. P. 192.

¹⁵⁹ Ibidem.

¹⁶⁰ Ibidem P. 60.

tells the story of a death foretold, as the Colombia Solidarity Report claims.

Chapter conclusion

The environmental degradation arising from mining activities in Colombian territory is evident. The most serious environmental damage is related to open-pit coal mining and gold extraction with cyanide. The use of highly toxic compounds like cyanide or mercury and surface extraction of coal pollutes the air, the land and hydric resources, while affecting communities that live in those areas. Miners become ill as a result of pollution and a lack of safe working conditions. In the cases mentioned in the department of La Guajira, Antioquia and Tolima, workers and nearby inhabitants have to live with the adverse consequences of mineral extraction, thereby breaching the rights of first, second and third generations.

As previously described, both international and local Colombian law is designed to protect diverse rights linked to the environment. In contrast, the cases mentioned in this document represent a breach of the right to life, to health, to access clean water, to food, to work and to the rights of minorities. All of these rights are established in Principle 1 of the Stockholm Declaration, the World Charter for Nature, Article 25 (1) of the Universal Declaration of Human Rights, and Articles 7 (b), 10 (3) and 12 of the International Covenant on Economic, Social and Cultural Rights, Article 79 of the Colombian Constitution and the International Principles of Environmental Law.

According to the International Principle of Sustainable Development and Preventive Action (of great importance in the La Colosa case) and Articles 8, 79 and 95 of the National Colombian Constitution, the Colombian State has the responsibility to protect the environment and take measures for remedying and preventing any disruption caused by mining activities. It is the duty of the State to protect the diversity and integrity of the environment, and

when measures are taken, it needs to pay special attention to the rights of women [Article 12 (2-h) of the Elimination of All Forms of Discrimination against Women], children [Article 24 (2-c) of the Convention on the Rights of the Child] and Indigenous people [Article 29 (1) of the United Nations Declaration on the Rights of Indigenous Peoples].

General conclusions

- The open economic mining policies of Colombia's last governments -2002-2010, 2010-2014- have had a series of unexpected side effects resulting in internal displacement and harm to the environment by private companies and illegal armed groups. Consequently, there have been multiple violations to human rights by private companies in diverse mining areas in Colombia, which on some occasions have led to forced displacement, spoliation and persecution of leaders. There have also been cases of environmental degradation, mainly due to the extraction of minerals through open-pit systems and the irresponsible handling of toxic chemicals.
- Because of the unexpected effects mentioned above, there has been a breach of the internally displaced persons' rights to dignity and physical, mental and moral integrity, liberty and security, life during displacement, freedom of movement, and to an adequate standard of living. Also, there has been a breach of the right to life, to health, to access clean water, to food and to work, of the mine workers, people living in local communities and minorities present in nearby areas.
- The violation of these different rights breaches both international and local law. Indeed, there are multiple violations of the UN Guiding Principles on Internal Displacement, the Geneva Convention IV and its Additional Protocols, the American Declaration of Human Rights, the Stockholm Declaration, the World Charter for Nature, the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, and the 1991 Colombian Constitution, among others.
- The International and local normative calls for State accountability
 when it comes to safeguarding the human rights of displaced
 persons and the protection of the environment. Therefore, with

regard to internally displaced persons, the Colombian State is under obligation to take all necessary measures to halt the occurrence of this phenomenon according to Principle 3 of the UN Guiding Principles on Internal Displacement, Article 3 of Colombian Law 387 of 1997 and the international customary law of the responsibility to protect. Considering the environmental issues, according to the International Principle of Sustainable Development, the Principle of Preventive Action, and Articles 8, 79 and 95 of the National Colombian Constitution, the Colombian State has a responsibility to protect the environment and take measures to remedy and prevent disruption to the environment in the mining context.

- The exploitation of mineral resources has triggered a variety of social and environmental issues within areas of high mining activity, which have been difficult to predict by the authorities as they represent an important challenge. It has been shown that the Colombian Government is not completely capable of managing and controlling mining extraction activities, which calls for a strengthening of the sector. The mining municipalities, especially those where gold and coal are being exploited, face institutional weakness, vulnerable socio-economic conditions, low presence of the State's authorities and therefore, a high incidence of armed conflict. Central government and local environmental authorities need to work together in order to gain increased control of mining zones.
- The mining and oil boom has brought about negative consequences for both the inhabitants and the environment in extraction areas. However, these activities have also translated into profits from taxes and royalties for municipalities that host the projects. The mining industry represents a unique opportunity to boost the country's infrastructure and bring a great number of Colombians out of poverty. Nevertheless, it should also be recognized that mining activities must not only be well regulated on paper, but

- also effectively controlled through the actions of different control offices, such as the Office of the Inspector General of Colombia and the Comptroller's Office.
- The government should create formulas to bring mafias in the region to an end and make room for the miners. Companies that are guilty of instigating corruption in institutions and that have violated the law must also follow a new ethical code and take measures towards achieving sustainable development. Once the appropriate institutional mechanisms are created, it is necessary to promote environmental protection as a good which is more valuable than gold or coal. With this in mind, it is vital to consider all feedback that the community leaders and NGOs can provide.

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- 1979 Convention on the Elimination of All Forms of Discrimination against Women.

- 1982 World Charter for Nature.
- 1985 UN Committee on Economic, Social and Cultural Rights.
- 1989 Convention on the Rights of the Child.
- 1989 Declaration of the Hague on the Environment.
- 1991 Colombian National Constitution.
- 1992 Rio Declaration on Environment and Development.
- 2007 United Nations Declaration on the Rights of Indigenous Peoples.

"This book seeks to offer a general approaching to breaches to human rights and the adverse effects on the environment resulting from the open economic policies implemented by the last Colombian Government's between 2002 and 2014 for the extraction of gold and coal in the departments of Antioquia, Cesar, La Guajira and Tolima.

This text contains an overview of the mining policies adopted during the mentioned period, and their transformation throughout the years. It then goes on to the two most problematic situations documented so far, namely, the breach of human rights in the form of forced displacement and violence against civilians in areas of abundant mineral reserves and the violation of environmental rights due to contamination of land, water and air resources.

The author pursues to analyse within the context of a descriptive methodology, how these "unwelcome" social and environmental side effects of the mining industry in Colombia can be considered breaches of diverse human and environmental rights in the most relevant mining zones in the country".



