



## Legal Protection of Areas of Ecological Importance Such as Paramo in Colombia

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### Introduction to the Paramo

As a megadiverse country, Colombia has a number of ecosystems of significant importance that have been identified as global biodiversity 'hot spots'. These areas should be particularly protected due to the ecosystem services that they supply and the great number of endemic species that live in them. The *Political Constitution of Colombia*<sup>1</sup> (1991) provides that the State has the duty to protect the diversity and integrity of the environment, conserve the areas of special ecological importance and promote education to achieve this objective (article 79).

Until now, there is not a precise definition or a descriptive list about what are the *areas of special ecological importance*. However, the High Courts, particularly the Constitutional Court, have played an important role in filling this gap. For instance, the Constitutional Court in some of its judgments has stated that from a legal point of view, wetlands are considered areas of special ecological importance. The Court explains that this character derives from Colombia's ratification of the *Ramsar*

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<sup>1</sup> *Constitución Política de la Republica de Colombia de (1991)*, available at [http://www.secretariasenado.gov.co/senado/basedoc/cp/constitucion\\_politica\\_1991.html](http://www.secretariasenado.gov.co/senado/basedoc/cp/constitucion_politica_1991.html).

*Convention*, which protects this type of ecosystem; and also due to the recognition of wetlands and other ecosystems as areas of special ecological importance through the jurisprudence of the High Courts.<sup>2</sup> Another example can be seen in the judgment C-443-09 where the Constitutional Court also recognized paramo ecosystems as areas of special ecological importance.<sup>3</sup>

Paramo is a unique mountain ecosystem. Paramo provide important reservoirs of water and play an important role in organic carbon storage. Paramo ecosystems are spread around the northern Andean mountain chain. They are located in high elevations, between the upper forest line and the permanent snow line (approximately 3000m and 5000 m respectively). They are mainly located in the humid Equatorial Andes in Venezuela, Colombia, Ecuador, northern of Peru and in some parts of Costa Rica and Panama.<sup>4</sup> Paramo ecosystems also consist of peat bogs, wet grasslands and lakes, which are considered wetlands under the *Ramsar Convention*.

Paramo offer essential ecosystem services. One of them is related to water, since this ecosystem possesses the ability to store and regulate this natural resource. In several cases, paramo constitute the source of potable water for some cities and provide for generation of energy. In fact, many of the headwaters of the major rivers in Colombia are located in paramo areas. Other ecosystem services are related to the vast biodiversity found in this form of ecosystem and their capacity to fix atmospheric carbon into the soil.<sup>5</sup>

Notwithstanding all the environmental services that this form of mountain ecosystem provides, paramo areas have been threatened for many years by a large number of

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<sup>2</sup> T-666 of 2002 Corte Constitucional. Acción de tutela de la Señora Gladys Rubiela Sosa Beltrán contra Empresa de Acueducto y Alcantarillado de Bogotá E.S.P. (available at <http://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=6230>).

<sup>3</sup> C-443-09 Corte Constitucional. Acción de inconstitucionalidad contra el artículo 34 de la ley 685 de 2001 Código de Minas (available at <http://www.corteconstitucional.gov.co/relatoria/2009/C-443-09.htm>).

<sup>4</sup> Missouri Botanical Garden, '*Paramos - Flora*' (available at [http://www.mobot.org/mobot/research/paramo\\_flora.shtml](http://www.mobot.org/mobot/research/paramo_flora.shtml)).

<sup>5</sup> T. van de Hammen and J. Otero, 'Los páramos: Archipiélagos terrestres en el norte de los Andes' in *Atlas de páramos de Colombia* (2007) Instituto de Investigación de Recursos Biológicos, Alexander von Humboldt. Bogotá, D.C. Colombia.

human and natural factors.<sup>6</sup> Some of these factors are: agricultural encroachment; uncontrolled fires; overgrazing; ill-planned regional development projects; global warming; and mining.

Since we can now recognise the importance of protecting and preserving this form of ecosystem, it is then necessary to analyze whether the legislation adopted in Colombia is adequate to offer sufficient protection to the paramo. It is to such an analysis that I now turn, commencing with the highest norm that exists in the national legal system and then moving downwards.

### **Colombia's Legal Framework of Relevance to Conserving the Paramo**

The *Political Constitution of Colombia* (1991) contains a number of environmental provisions, which did not exist before. For instance, for the first time in Colombia the right to have a healthy environment was incorporated (article 79). In addition, the *Constitution* states that property has a social and ecological function (article 58) and that the State has the duty to prevent and control the factors of environmental deterioration, impose sanctions and require the reparation of damage to the environment (article 80). Furthermore, the *Constitution* incorporates the possibility of limiting economic activities if required by social interest, the environment and the cultural heritage of the nation (article 333). It is due to these and other provisions that the *Constitution* has been named the 'Ecological Constitution' by the judiciary.<sup>7</sup>

Many of the above constitutional environmental provisions have been subsequently enunciated and developed through legislation. The most relevant one of these laws is *Law 99*<sup>8</sup> (1993). It establishes the general environmental principles for Colombia's

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<sup>6</sup> Global Environment Facility, 'Project: Conservation of the Biodiversity of the Paramo in the Northern and Central Andes' (2003) *Project Appraisal Document* (available at [http://gefonline.org/project\\_DetailsSQL.cfm?projID=1918](http://gefonline.org/project_DetailsSQL.cfm?projID=1918)), at 11-12.

<sup>7</sup> C-375-94 Corte Constitucional, Review of Decree 1265 of June 21 1994, which adopted special provisions about credits in disaster zones in the departments of Cauca and Huila (available online at <http://www.corteconstitucional.gov.co/relatoria/1994/C-375-94.htm>).

<sup>8</sup> *Law 99* of 1993 (available at <http://www.alcaldiabogota.gov.co/sisjur/normas/Norma1.jsp?i=297>). This law creates the Ministry of Environment, reorganizes the public sector in charge of the management and

environmental policy. These principles include the following: the country's biodiversity shall be protected and exploited in a sustainable manner; water for human consumption will be considered a priority over any other water use; landscape, as common heritage, shall be protected; and environmental impact studies will be the basic tool for decision making regarding the construction of works and activities that significantly affect the natural or artificial environment. In addition, within this list of principles, it is mentioned that paramo areas, subparamos, water sources and aquifers shall be subject to special protection (article 1). This is the only form of ecosystem that is expressly mentioned in this list of environmental principles.

Another relevant environmental norm is the *Code of Renewable Natural Resources*.<sup>9</sup> This code is divided into different chapters per resource. It regulates the following resources: atmosphere and airspace; water; soil; terrestrial fauna and flora; and hydrobiologic resources. This code unfortunately regulates these resources in a fragmented manner and does not provide for the management and protection of ecosystems.

At a lower level, *Resolution 769*<sup>10</sup> was adopted by the Minister of Environment in 2002. It complements the implementation of the provisions contained *Law 99* (1993) and the *Code of Renewable Natural Resources*. *Resolution 769* was specifically adopted to contribute to the protection, conservation and sustainability of the paramo ecosystem. Its preamble states that paramo areas are a unique ecosystem with a singular cultural and biotic richness. It furthermore states that the paramo ecosystem contains a high level of endemic species of fauna and flora that are of enormous value and that constitute an essential factor for the systemic balance, biodiversity management and natural heritage of the country.

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conservation of the environment and natural renewable resources, and establishes the National Environmental System.

<sup>9</sup> *Law 2811* of 1974.

<sup>10</sup> *Resolution 769* of 2002 (available at [http://www.icbf.gov.co/transparencia/derechobienestar/resolucion/minambiente/resolucion\\_minambiente\\_0769\\_2002.html](http://www.icbf.gov.co/transparencia/derechobienestar/resolucion/minambiente/resolucion_minambiente_0769_2002.html)).

*Resolution 769* is the only provision in the whole national legal system dedicated solely to the regulation of the paramo ecosystem. It defines what the paramo is.<sup>11</sup> It requests regional autonomous corporations (regional governmental entities in charge of the administration of the environment and natural resources) and big urban centers to undertake studies regarding the actual state of paramo areas located within their jurisdiction and to declare them under one of the management categories provided by law (article 3). Moreover, *Resolution 769* also requests the regional autonomous corporations to design and implement environmental management plans for such areas in consultation with the communities that traditionally settle within them (article 4).

Unfortunately, *Resolution 769* is not a comprehensive norm that entirely regulates the protection, conservation and sustainable use of the paramo. In fact, there are other norms within the national legal system that also play an important role in regulating the paramo.<sup>12</sup> Legislation regarding soil, protected areas, water, mining and agriculture, for example, is also of relevance to the protection and regulation of the paramo.

Regrettably, the above legal instruments have not been sufficient to successfully protect and conserve paramo ecosystems situated in Colombia against harmful activities such as agriculture and mining. In particular, *Resolution 769* is ineffective if the regional autonomous corporations do not map the extent and analyse the state of the paramos situated within their jurisdiction. As a result, and recognizing that paramo ecosystems are areas of special ecological importance, an amendment to the existing legal framework has been made recently in an effort to protect them against one of the most damaging activities contributing to their destruction, namely mining.

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<sup>11</sup> Article 2 defines the 'paramo' as 'high mountain ecosystem, located between the upper limit of the Andean forest and, if it is the case, with the lower limit of glaciers and perpetual snow, which is dominated by a herbaceous vegetation and grasses, often frailejon. It may have formation of low forest and wetlands, such as rivers, streams, creeks, swamps, marshes, lakes and lagoons'.

<sup>12</sup> E. ugenia de Leon-Chaux, '*Marco jurídico Colombiano relacionado con Paramos*' (2002) 1 *Congreso Mundial de Paramos* (available at [www.paramocolombia.info/Documentos/PrimerCongresoMundialdeParamos/TOMO 1.pdf](http://www.paramocolombia.info/Documentos/PrimerCongresoMundialdeParamos/TOMO 1.pdf)).

## Recent Legal Developments Seeking to Protect the Paramo Ecosystem.

Mining exploration and exploitation activities have contributed significantly to the demise of paramo ecosystems in Colombia. These same activities do, however, contribute to the economic development of the country and provide a source of income for a large number of families. Therefore, the regulation of these activities is essential as well as the identification of areas in which mining should not be allowed.

In order to offer a greater protection to certain nature areas, the *Mining Code*<sup>13</sup> was amended on 9 February 2010. The amendment<sup>14</sup> modifies the provisions in the *Mining Code* that prohibit mining activities in certain areas. According to the old provision, no mining activity could take place in those areas that formed part of the system of national natural parks, natural parks with regional character and forest reserves. Under the amended legislation, this prohibition is extended to the paramo ecosystem and wetlands designated under the *Ramsar Convention*. Article 3 of the amended legislation reads as follow:

'No exploration or exploitation mining work can be executed in areas that have been identified and declared as zones of protection and development of the natural renewable resources or of the environment according to the law.

The excluded zones are those that have been constituted or will be constituted according to the current legislation, such as areas that are part of the System of national natural parks, natural parks of regional character, protected zones of forest reserve and the rest of zones of forest reserve, paramo ecosystem, and the wetlands that have been designated according to the Ramsar Convention. In order for these areas to produce effects, they have to be geographically delimited by environmental authority based on technical, social and environmental studies.

Paramo ecosystem will be identified according to the cartographic information given by the research institute Alexander Von Humboldt<sup>15</sup>.

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<sup>13</sup> Law 685 of 2001.

<sup>14</sup> The amendments were affected under Law 1382 of 2010.

<sup>15</sup> Original text translated by the author.

Under the previous legal regime, paramo areas were only protected against mining activities if they were located within a natural park or forest reserve. While the amended legislation extends protection to paramo areas situated outside these formal protected areas, such protection is once again dependant on the relevant environmental authority identifying and geographically delimiting these areas. A failure to do so will leave them exposed to mining activities. It is interesting to note that in formulating this new regime, the legislator took into consideration the jurisprudence of the Constitutional Court regarding areas of special ecological importance that need to be particularly protected, since the new legislation includes both paramo and wetlands as areas within which mining activities are precluded.

The amendments to the *Mining Code* also alter the range of areas that can be declassified as areas in which mining is prohibited. Under the amended regime, only forest reserves created under *Law 2 (1959)* and regional forest reserves can be declassified by the environmental authority. As a result, areas that are part of the system of national natural parks, natural parks of regional character, paramos and wetlands cannot be declassified. When an area is declassified, the mining authority will establish the conditions on which mining activities can take place in the area. Such activities cannot, however, impact on any parts of the forest reserve area that have not been declassified. Therefore, some activities can be restricted or allowed provided that they comply with strict conditions prescribed by the mining authority.

The recent amendments to the *Mining Code* also provide that mining rights and environmental licenses in operation in areas within which mining activities were not previously prohibited, remain valid. They will not however be renewed when the amended regime comes into force.

### **An Evaluation of the Recent Developments**

In summary, there is a clear trend in Colombia's environmental legal regime to offer special protection to paramo ecosystems. This trend permeates the entire regime from the *Political Constitution of Colombia (1991)* through to the laws adopted by Parliament and the resolutions issued by the Ministry of Environment. The main

problem in Colombia regarding protecting areas of ecological importance, such as the paramo, is not a deficient legal regime but the absence of compliance and enforcement measures to ensure that it is properly implemented.

It was only towards the end of 2010, that the Ministry of Environment Housing and Territorial Development (MAVDT), in a national operation against illegal mining, closed 48 illegal mines.<sup>16</sup> Of further concern is the large number of paramo areas that have not been formally identified, which opens up the possibility of mining activities being authorised within them. Finally, according to the new President Santos, mining is one of the mainstays of the country's national economic development.<sup>17</sup> This places extra pressure on the environment authorities to issue mining permits.

At present, there is discussion about the development of an open pit gold-silver mine in a mountain area in the northern-east part of Colombia. An extensive portion of the land comprises of paramo. Greystar, a Canadian company that is interested in developing a mine in the area, presented its environmental impact assessment (EIA) report to the MAVDT in December 2009. In February 2010, the amended *Mining Code (Law 1382)* came into force. The MAVDT therefore requested Greystar to prepare and present a new EIA report taking into account the impacts of the revised legal regime that specifically prohibits mining activities in paramo areas. Greystar challenged the decision of the MAVDT requesting them to submit a revised EIA report, on the grounds that their application preceded the commencement of *Law 1382* and it should accordingly not have been taken into account in relation to their initial application. Greystar succeeded in its appeal and accordingly the MAVDT will have to make its decision on the basis of the previous regime and EIA report submitted under it. Several communities and non-governmental organizations are concerned by the above decision, specifically the manner in which the developer has managed to circumvent the application of the revised regime specifically designed to protect paramo areas, such as that in which it seeks to undertake its mining activity.

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<sup>16</sup> See further: Ministerio de Ambiente, Vivienda y Desarrollo Territorial, '*Minería ilegal Noticias Institucionales*', dated 26 October 2010 (available at <http://www.minambiente.gov.co//contenido/contenido.aspx?conID=6397&catID=1137>).

<sup>17</sup> See further: J. Santos, '*Buen gobierno para la prosperidad democrática, 110 iniciativas para lograrla*' (2010) Plan de gobierno (available at <http://www.santospresidente.com/pdf/plan-de-gobierno-juan-manuel-santos.pdf>).

This case provides clear evidence of the immense political and economic pressure placed on environmental authorities. The MAVDT should bear in mind, however, that article 3 of *Law 1382* only provides that licenses and permits issued before the new legislation enters into force will remain valid. *Law 1382* does not provide that if an authorization process was initiated prior to its commencement, its provisions cannot be taken into account. I am therefore of the opinion that should the environmental authorities fail to take into consideration that the mining will take place in a paramo area, in which under *Law 1382* mining is prohibited, their subsequent decision will be *ultra vires*.

The drawbacks of allowing mining and exploitation activities in these areas of significant ecological importance are not only related to biodiversity loss, but also to the reduction of water quantity produced by them. Mining is considered one of the main sources of water contamination.<sup>18</sup> These risks are heightened in the case of a gold-silver mines due to the risks associated with cyanide contamination. Such contamination would impact on not only the area itself, but also potentially affect fauna, flora and human beings situated downstream. In addition, an open pit mine would completely modify or destroy the landscape of the mountain area under discussion.

It can be concluded that Colombia's national environmental regime can provide for the protection of the paramo. This is however dependant on national, regional and local environmental authorities implementing it. Such implementation would include applying the norms contained in the regime when making their decisions, identifying paramo areas and designing management plans to conserve such areas. In addition, it is important that the country's economic imperatives do not trump its environmental imperatives. As a significant part of Colombia's economy is based on the exploitation of natural resources, it is necessary to realize that providing for the unsustainable utilization of such resources does not provide a long-term sustainable solution for the country.

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<sup>18</sup> G. Pérez, 'Desarrollo y medio ambiente: una mirada a Colombia' (2002) 1(1) *Revista Economía y Desarrollo*, at 84 (available at <http://www.fuac.edu.co/revista/M/seis.pdf>).