

A dilemma of gas flaring and venting regulation in Colombia: challenges of reconciling environmental protection and legal stability of investors



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Andrea Alarcón-Peña
andreaalarcomp@gmail.com
Universidad Militar Nueva Granada
ORCID: <https://orcid.org/0000-0003-4926-4288>
Iván Vargas-Chaves
ivan.vargas@unimilitar.edu.co
Universidad Militar Nueva Granada
ORCID: <https://orcid.org/0000-0001-6597-2335>
José López-Oliva
jose.lopez@unimilitar.edu.co
Universidad Militar Nueva Granada
ORCID: <https://orcid.org/0000-0001-9308-2153>

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ABSTRACT

The paper studies the problems brought about by Resolution 40066 of 2022 of the Ministry of Mines and Energy of Colombia, regarding the new requirements it sets up for the flaring and venting of natural gas in Colombia. These requirements, which must be followed by the investing companies, imply an investment in infrastructure and technology that may imply a contractual imbalance and a negative impact on foreign investors. From a documentary analysis method with a systematic and deductive approach, the authors analyze the problematic scenario posed by the resolution and concludes that it is necessary to find a balance between the two legal interests at stake: the environment and free enterprise. As a result, the paper supplies a comprehensive and integrative view of the State's obligation to protect the environment, but also to ensure a stable and predictable legal framework for investments.

Keywords: Natural Gas Regulation, Legal Stability, Climate Change, Legal stability contracts, environmental protection.

Un dilema en la regulación de la quema y venteo de gas en Colombia: desafíos de conciliar protección ambiental y estabilidad jurídica para los inversionistas

RESUMEN

El artículo estudia los problemas que trae la Resolución 40066 de 2022 del Ministerio de Minas y Energía de Colombia, respecto de los nuevos requisitos para la quema y ventilación de gas natural en Colombia.

Estos requisitos, que deben ser cumplidos por las empresas inversoras, implican una importante inversión en infraestructura y tecnología que puede resultar en un desequilibrio contractual y un impacto negativo para los inversores extranjeros. Utilizando un método de análisis documental con enfoque sistemático y deductivo, los autores analizan el escenario que plantea la resolución y concluyen que es necesario encontrar un equilibrio entre los dos intereses jurídicos en juego: el medio ambiente y la libre empresa. Como resultado, se proporciona una visión amplia e integradora de la obligación del Estado de proteger el medio ambiente, pero también de garantizar un marco jurídico estable y predecible para las inversiones.

Palabras clave: Regulación del Gas Natural, Estabilidad Jurídica, Cambio Climático, Contratos de estabilidad jurídica, protección ambiental.

Um dilema na regulação da queima e ventilação de gás na Colômbia: desafios de conciliar proteção ambiental e estabilidade jurídica para os investidores

RESUMO

O artigo investiga os problemas introduzidos pela Resolução 40066 de 2022 do Ministério de Minas e Energia da Colômbia, em relação aos novos requisitos para a queima e ventilação de gás natural no país. Esses requisitos, que as empresas investidoras devem atender, envolvem um investimento significativo em infraestrutura e tecnologia, o que pode levar a um desequilíbrio contratual e impacto negativo para investidores estrangeiros. Através de uma análise documental com uma abordagem sistemática e dedutiva, os autores examinam o cenário proposto pela resolução e concluem que é essencial encontrar um equilíbrio entre dois interesses jurídicos conflitantes: a proteção ambiental e a liberdade empresarial. Como resultado, oferece-se uma visão abrangente e integradora da obrigação do Estado em proteger o meio ambiente, ao mesmo tempo que garante um quadro jurídico estável e previsível para os investimentos.

Palavras-chave: Regulação do gás natural, Estabilidade jurídica, Mudança climática, Contratos de estabilidade jurídica, Proteção ambiental.

1. Introduction

Resolution 40066 of 2022 of the Ministry of Mines and Energy of Colombia is a necessary measure to mitigate methane emissions in Colombia. The resolution sets up clear and objective limits for flaring and venting of natural gas and requires operators to implement measures to detect and repair leaks. This standard is also a key step towards meeting Colombia's climate goals, which include reducing greenhouse gas emissions by 51% by 2030 and achieving carbon neutrality by 2050.

In terms of operations, Resolution 40066 of 2022 sets up clear and objective limits for the flaring and venting of natural gas and requires operators to implement measures to detect and repair leaks. In addition, Resolution sets up measures to predict potential damage, which helps to prevent environmental and human health damage.

The problem brought about by the implementation of the guidelines and requirements in resolution to significantly reduce methane emissions in Colombia is the change of conditions for foreign investors in Colombia since they were measures that were not agreed upon at the time of signing the agreements and instruments, in some cases, to the point of implying an economic and technical imbalance against investors, in addition to violating agreements signed under legal stability contracts, affecting the conditions of compliance.

Although the resolution is a crucial step towards meeting Colombia's climate goals and has the potential to significantly reduce methane emissions in the country, it also is a major challenge for the legal stability of agreements, licenses, or contracts that stipulate initial conditions, which are changing in this new scenario.

The purpose of this text is to study the problems derived from the requirements of Resolution 40066 of 2022 for the investing companies, who agreed on the first conditions in the framework of operations that contemplate flaring activities and venting of natural gas. These first conditions that they will have to follow, contemplate an investment in infrastructure, and technology, in addition to an important economic effort that implies a contractual imbalance. However, the text also emphasizes the need to contemplate these requirements to safeguard the environment as a protected legal interest.

The study was conducted from a documentary analysis with a systematic and deductive approach to integrate several approaches to examine the Resolution concerning the problems described. From this method, current norms and legal doctrine were analyzed. In this sense, the author was able to find legal instability and environmental protection from different points of view (systematic approach). He was also able to organize the information coherently and sequentially (deductive study).

The paper, which is the result of the author's academic exercise as a professor at the Universidad Militar Nueva Granada, presents a discussion of a critical scenario about the problem that implies the mandatory compliance of the Resolution by the companies, and the impact that it can suppose for foreign investors. Even if this, it may pose a problem for the State, who would have the duty to compensate them for the damages they may suffer because of an economic and technical imbalance in the execution of the contracts.

The author concludes that, although the fight against climate change is a challenge for the State, it is also a challenge to find a balance between the two legal interests at stake, the environment on the one hand and free enterprise on the other. In the end, it is a fact that the State must protect the environment and reduce greenhouse gas emissions, but it is also true that it must ensure a stable and predictable legal framework for investments, as this is essential for economic growth.

2. Methodology

The proposed analysis followed a documentary analysis method, which is based on an analytical exercise deductive and systematic, based on various specialized sources, such as current regulations and legal doctrine. As a result, it allows us to study a complex issue: the legal instability that could potentially be caused by Resolution 40066 of 2022 from different perspectives.

The collected sources come from academic databases such as Scopus or Web of Science, allowing us to understand the theoretical foundations of the problem described. In this case, the proposed method made it possible to comprehensively address current issues such as the fight against climate change, the regu-

lation of flaring and venting of natural gas, the implementation of measures to detect and repair leaks, as well as the figure of legal stability.

The systematic orientation of the methodology made it possible to organize knowledge and establish relationships between the different elements of the study topic; and the deductive orientation allowed us to reach the question of the possible non-compliance with the commitments agreed upon before the regulation, which, although necessary, represented an important challenge for the law to protect the environment and guarantee free enterprise.

Finally, it is important to note that the deductive orientation allowed the results and discussion to be organized logically and coherently, starting from the generalities in the field of environmental protection and the regulation of natural gas extraction, until landing on the “contracts of legal stability”.

3. Results

The fight against climate change

Climate change is one of the main challenges facing humanity in the 21st century. Its effects are already being felt worldwide and are expected to worsen in the coming years (Palmer et al., 2008; Schmidt, Ivanova & Schäfer, 2013; Giosan et al., 2014). In the case of Colombia, a country highly vulnerable to climate change, the State has demonstrated its commitment to the fight against this phenomenon, adopting different international treaties, as well as laws, regulations, and domestic policies that seek to reduce greenhouse gas emissions and achieve carbon neutrality by 2050 (Ramírez-Villegas et al., 2012).

Among the most important international instruments signed by Colombia are the United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement. These instruments set up global goals for the reduction of greenhouse gas emissions and supply a framework for international cooperation to address climate change.

At the national level, Colombia has issued Law 1715 of 2014, which sets up the National Climate Change Policy. This law defines the goals, strategies, and actions that the country must implement to mitigate and adapt to climate change (Peña & Gallego, 2018). Likewise, a series of public policies and programs have promoted the transition to a low-carbon economy (Aristizábal Alzate & González Manosalva, 2019).

These include the National Development Plan 2018-2022, which includes a chapter dedicated to climate change; the National Energy Plan 2018-2030, which promotes the use of renewable energies; and the National Forestry Development Plan 2021-2030, which seeks to protect and restore Colombian forests. Colombia's commitment to the fight against climate change is a crucial step in the right direction (Rodríguez Becerra & Mance, 2009). In this context, one of the most important challenges is to reduce greenhouse gas emissions from the energy sector. Colombia is a country that is highly dependent on fossil fuels and, therefore, it is necessary to accelerate the transition to renewable energies (Arango, 2009).

Another challenge for the Colombian state in its fight against climate change is to protect Colombian forests, which are an important carbon sink. Colombia is home to 7% of the Amazon rainforest, and, therefore, it is essential to implement forest conservation and restoration policies (Gómez-Lee, 2019; Pabón Caicedo, 2012; Güiza et al., 2019). And although the fight against climate change is a global effort that requires the commitment of all countries, Colombia, as a country vulnerable to climate change, has a significant role to play in the search for solutions to this challenge.

Resolution 40066 of 2022 and its regulatory framework

In the absence of a regulatory framework to meet this need, Resolution 40066 of 2022, issued by the Ministry of Mines and Energy, is a key step in the fight against climate change in Colombia. This resolution sets up the technical enabling requirements for the detection and repair of leaks and the exploitation, flaring, and venting of natural gas during hydrocarbon exploration and exploitation activities.

Flaring and venting of natural gas are two of the main sources of greenhouse gas emissions in the hydrocarbon sector (Saavedra Trujillo & Jiménez Inocencio, 2014). The resolution sets up the largest limits for flaring and venting of natural gas, which can only be authorized for safety reasons or duly justified operational conditions.

In practice, this implies that operators of hydrocarbon exploration and exploitation activities must implement a series of technological measures and tools for the detection, measurement, and quantification of greenhouse gases, as well as studies on the use of natural gas.

The resolution is the first internal norm promoted to implement strategies focused on the reduction of greenhouse gases. It is a key step towards meeting Colombia's climate goals, which include reducing greenhouse gas emissions by 2030. Therefore, the standard has potential benefits for the environment and the economy.

In environmental terms, the resolution will contribute to reducing greenhouse gas emissions, one of the main factors of climate change. It will also help protect air quality and the environment in areas where hydrocarbon exploration and exploitation activities are conducted.

In economic terms, the resolution can help generate savings for operators of hydrocarbon exploration and exploitation activities. The reduction of flaring and venting of natural gas can generate savings in hydrocarbon production and transportation costs. In addition, the resolution can help create new jobs in the renewable energy sector and the use of natural gas.

The problem posed by the measures of Resolution 40066 of 2022 for legal stability

From the perspective of the challenges faced by the resolution, firstly, the operators of hydrocarbon exploration and exploitation activities must implement the technological measures and tools required by the resolution. This may require significant investments, which operators may not be willing to make at once. Secondly, the competent authorities must exercise effective control over compliance with the resolution. This is important to ensure that operators follow the established requirements, and that the resolution has the expected impact on the reduction of greenhouse gas emissions.

Overall, Resolution 40066 of 2022 is a positive measure that may contribute to reducing greenhouse gas emissions in Colombia. However, it is important to overcome the challenges to ensure that the resolution has the expected impact, and, in any case, the most important challenge will be the foreseeable legal instability that could affect foreign investment.

In this context, legal stability is achieved through agreements between a State and a foreign investor that seek to ensure that the investment is not affected by changes in legislation or regulation (Azüero Zúñiga, Guzmán Vásquez & Trujillo Dávila, 2017). These agreements usually grant the investor the right to

continue to be subject to the laws and regulations existing at the time of signing the contract, even if they change in the future (Galán Barrera, 2006).

The figure of legal stability can be reinforced through legal stability contracts, which are important for attracting and keeping foreign direct investment, which is a key factor for economic growth since it generates employment, creates infrastructure, and promotes innovation (Morales, Guerrero, & López, 2009). Thus, legal stability contracts provide investors with greater certainty about the regulatory environment in which they must operate, allowing them to make investment decisions with greater confidence since they know that they will not be affected by changes in laws or regulations that may harm their interests (Quiroga-Natale & Villegas-Ibáñez, 2008).

Another key aspect of this figure is that they can also help protect investors from expropriation, which is the forced taking of private property by the State (Quintero Garay, 2008). Legal stability contracts, for example, in the case of Peru, can include clauses that protect investors from expropriation, or that guarantee that they will be adequately compensated in case of expropriation (Vega Sánchez, 2002).

If the above is analyzed from the point of view of the advocates of a state paternalism that looks to superimpose the decision-making ability of the States on the commitments previously agreed with investors. This may be the case for companies in the hydrocarbon sector in activities that require compliance with guidelines for detecting and repairing natural gas leaks, as well as their use, flaring, and venting in the framework of exploration and exploitation of hydrocarbons in Colombia.

Indeed, those who assume a defense of this position argue that legal stability agreements and mechanisms have also been criticized by some. It is argued that these agreements may give investors too much power and that they may limit the State's ability to regulate the economy (Castaño & Galeano, 2011; Guauque Torres, 2012; Azuero Zúñiga, Guzmán Vásquez & Trujillo Dávila, 2017).

4. Discussion

In any case, legal stability agreements can be a valuable tool for attracting and keeping foreign direct investment. However, it is important that these agreements are carefully negotiated to ensure that they do not give too much power to investors and that they do not limit the State's ability to regulate the economy (Marín Vélez, 2006).

As a proposal, a fair scenario should be advocated, with fair conditions and a fair distribution of both the risks assumed in this type of agreement, as well as the benefits. In the case of legal stability contracts signed between the Colombian State and foreign companies, a key advantage is the greater certainty about the regulatory environment in which investors must work. This allows them to make investment decisions with greater confidence since they know that they will not be affected by changes in laws or regulations that may harm their interests.

In addition, depending on the context and conditions agreed upon, legal stability contracts may help protect investors from expropriation. Indeed, legal stability agreements may include clauses protecting investors from expropriation or ensuring that they are adequately compensated in case of expropriation. And, finally, legal stability agreements are certainly an attraction for foreign direct investment, as they can help attract and keep foreign direct investment, which is a key factor for economic growth, as it generates employment, creates infrastructure, and promotes innovation.

Regarding the challenges to be faced concerning Resolution 40066 of 2022 and the figure of legal stability agreements -signed in the past and to be signed after the enactment of the law-, we must not lose sight of the fact that in both cases they can be costly for the State, since it should pay investors compensation if it changes the laws or regulations that affect their investment.

In this specific case, the change in the rules of the game is clear in the investment that must be made to implement mechanisms and procedures for leak detection and repair, as well as for the use, flaring, and venting of natural gas during hydrocarbon exploration and exploitation activities. This implies an added expense for foreign companies, which will have to invest in the development of new products and processes, as well as in infrastructure and recent technologies. These are expenses that were not initially foreseen in the initially agreed conditions.

Although the resolution sets up the largest limits for the flaring and venting of natural gas, which can only be authorized for safety reasons or duly justified operational conditions, in practice it also implies restrictions and a change in the rules of the game.

This also implies that the operators of hydrocarbon exploration and exploitation activities must implement a series of measures and technological tools for the detection, measurement, and quantification of greenhouse gases, as well as studies on the use of natural gas. If not implemented during the execution of the agreements, the State could suspend the authorization.

In addition to the above, of course, there are measures to predict potential damage, including the mandatory report that the company that conducts the natural gas flaring process in well control operations must make within 24 hours of the event to the supervisory agency in the periodic report.

In conclusion, a change in the rules of the game with a mandatory rule, such as Resolution 40066 of 2022, which despite being justified by the need to adopt measures against climate change, implies an economic and technical contractual imbalance, especially if the rules of the game were already contemplated in agreements, licenses, or if they had been agreed through legal stability contracts. It is therefore necessary to continue to address this problem to seek solutions that balance the two legal interests protected, on the one hand, the right to enjoy a healthy environment, and on the other hand, free enterprise. In any case, the State and investors must work together to find a solution that is fair and fair for all. Undoubtedly, this will be a task to be led by the Ministry of Mines and Energy, together with the Ministry of Commerce, Industry, and Tourism, to find the main challenges and propose practical solutions based on a diagnosis of the current situation.

This diagnosis would be necessary to find the real impacts of Resolution 40066 of 2022 on companies so that a transition plan can be implemented that is fair and fair for all parties involved. This plan should consider the needs of the companies and the impact on the environment of the activities regulated in the referred standard. This would contribute to finding a sustainable solution that protects the environment and promotes foreign investment.

5. Conclusions

- i. Resolution 40066 of 2022, issued by the Colombian Ministry of Mines and Energy, sets up a technical framework for the detection and repair of leaks, tapping flaring, and venting of natural gas during hydrocarbon exploration and exploitation activities. This resolution is a major step towards meeting

Colombia's climate goals, which include reducing greenhouse gas emissions by 51% by 2030 and achieving carbon neutrality by 2050.

- i. However, the resolution faces challenges, such as the need for operators to undertake significant efforts in infrastructure and deployment of technical measures, as well as new procedures to follow the requirements of the resolution. While this may require significant investments, it is also necessary to meet environmental aims.
- iii. In the case of legal stability agreements, signed by the Colombian State with foreign companies, this change in the rules of the game could generate an economic and technical contractual imbalance. This is because, in many cases, legal stability agreements guarantee companies that laws and regulations will not change in a way that affects their investments.
- iv. Resolution 40066 of 2022 is a mandatory rule, so the State could be obliged to pay companies compensation if they consider that their investments have been negatively affected. In other cases, the guidelines and requirements provided by the Resolution may even result in a breach of contracts.
- v. This poses a challenge for the State to find a balance between the two protected legal interests, on the one hand, the healthy environment and, on the other, free enterprise. Thus, while the State must protect the environment and reduce greenhouse gas emissions, it also must guarantee foreign companies and investors a stable and predictable legal framework for their investments, since growth in the current economic development model depends on it.

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