

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

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Analysis of carbon bonds regulatory framework and indigenous rights in Andean countries

Análisis del marco regulatorio de bonos de carbono y los derechos indígenas en países andinos

Jesús Ramón Jaimes-Becerra

jrjaimes@pucesd.edu.ec

Pontificia Universidad Católica de Ecuador, Santo Domingo, Santo Domingo
Ecuador

<https://orcid.org/0000-0002-0651-274X>

Jenny Marlene Villegas-Solís

Jenny.villegasso@ug.edu.ec

Universidad de Guayaquil, Guayaquil, Guayas
Ecuador

<https://orcid.org/0000-0001-7974-3234>

Génesis Andrea García-Quezada

gagarciaq@pucesd.edu.ec

Pontificia Universidad Católica de Ecuador, Santo Domingo, Santo Domingo
Ecuador

<https://orcid.org/0000-0003-4675-3617>

Jimena Alexandra Campaña-Chaglla

866269@unizar.es

Universidad de Zaragoza, Zaragoza, Zaragoza
España

<https://orcid.org/0000-0003-2187-7496>

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Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

ABSTRACT

This study presents a comparative analysis of the regulatory framework and implementation of carbon bonds in the member countries of the Andean Community of Nations, CAN (Colombia, Peru, Ecuador, and Bolivia). The research identifies distinctive patterns in the regulations of each member country. Through social events analysis (lawsuits, popular consultations and protests), common challenges are identified, especially regarding prior consultation with indigenous peoples. The study concludes that, despite different national approaches, there is significant potential for regional cooperation and harmonization of standards while respecting human rights. The development of common protocols and the implementation of transparent registration and monitoring systems are recommended. This research contributes to understanding regional dynamics in carbon market development, facilitating more effective participation in them.

Descriptors: Human Rights; Andean Community of Nations; climate justice; REDD+; carbon markets. (UNESCO Thesaurus).

RESUMEN

Este estudio presenta un análisis comparativo del marco regulatorio y la implementación de bonos de carbono en los países miembros de la Comunidad Andina de Naciones, CAN (Colombia, Perú, Ecuador y Bolivia). La investigación identifica patrones distintivos en las normativas de cada país miembro. A través del análisis de hechos sociales (juicios, consultas populares y protestas), se identifican desafíos comunes, especialmente en lo referente a la consulta previa a pueblos indígenas. El estudio concluye que, a pesar de las diferentes aproximaciones nacionales, existe un potencial significativo para la cooperación regional y la armonización de estándares, mientras se respetan los derechos humanos. Se recomienda el desarrollo de protocolos comunes y la implementación de sistemas transparentes de registro y seguimiento. Esta investigación contribuye a la comprensión de las dinámicas regionales en el desarrollo de mercados de carbono, facilitando una participación más efectiva en los mismos.

Descriptores: Derechos humanos; Comunidad Andina de Naciones; justicia climática; REDD+; mercados de carbono. (Tesauro UNESCO).

INTRODUCTION

Climate change represents one of the major challenges of the 21st century, requiring immediate responses and effective mechanisms to protect the future through greenhouse gas (GHG) emissions reduction (Ordóñez et al., 2015). In this context, the carbon bonds market has emerged as a market-based tool to combat global warming. This instrument, which originated from the commitments established in the Kyoto Protocol and was further strengthened by the Paris Agreement and its subsequent regulations, has evolved into a central element for financing climate mitigation, enabling the monetization of emission reductions and creating economic incentives for the transition towards low-carbon economies (Espinosa & Mancera, 2015).

The South American region, particularly the Andean countries, presents unique characteristics for the global carbon market. Its extensive forest coverage and rich biodiversity along with its potential for developing renewable energy projects (Ardisana & Gaínza, 2022), make it an ideal territory for implementing emission reduction. Simultaneously, these countries are home to a significant indigenous population Bozigar et al. (2016) whose ancestral territorial rights frequently overlap with areas where carbon bond projects are implemented, creating potential tensions between these rights and climate mitigation objectives. Despite belonging to the same economic bloc, the Andean Community of Nations (CAN), each member country (Colombia, Ecuador, Peru, and Bolivia) has adopted different approaches regarding the regulatory framework of these markets, their institutionalism, and implementation mechanisms, while seeking to develop these instruments while respecting indigenous peoples' rights.

This analysis examines how these four nations have incorporated carbon bonds into their legal frameworks, with particular emphasis on the interaction between these mechanisms and indigenous rights, specifically the right to prior and informed consultation, through an examination of relevant case law in each country. This study is especially timely as carbon markets emerge in the region, where they remain largely unexplored even as countries seek financing for sustainable development initiatives. Understanding these diverse

national approaches offers valuable insights for both the evolution of Andean law and the development of regional carbon markets.

In the context of non-renewable energy expansion, particularly oil and gas production, indigenous peoples have consistently been among the most severely impacted populations. This context suggests that carbon markets, through their role in forest protection, could serve as crucial mechanisms for both safeguarding indigenous rights and addressing climate change, while simultaneously promoting sustainable energy development. However, it is imperative to acknowledge that these markets' operational frameworks, in their current configuration, exhibit significant structural limitations.

Carbon credits are financial instruments that represent the reduction or capture of one metric ton of carbon dioxide equivalent (tCO₂e) from the atmosphere. This standardized measurement enables companies to quantify and trade emission reductions across all greenhouse gases by converting them to their CO₂ equivalent based on their global warming potential. This equivalency enables the creation of a unified market where different types of projects and technologies can compete on a level playing field.

The fundamental principle underlying the carbon credit market is the "polluter pays" concept, initially developed in international environmental law. This principle establishes that economic agents must internalize the environmental costs of their activities, thus creating an economic incentive for emission reduction. Carbon credits materialize this principle by allowing companies and organizations that cannot reduce their emissions immediately or cost-effectively to offset their environmental impact by financing reductions in other locations where it is more efficient to do so.

By assigning monetary value to emission reductions, carbon credits transform climate mitigation actions into financial assets, enabling the channeling of resources toward projects that can help protect both human rights and indigenous peoples' ancestral territories while recognizing their traditional ecological knowledge and cultural practices in environmental conservation. This approach acknowledges the crucial role that indigenous communities play in biodiversity preservation and climate change mitigation, while

supporting their right to economic self-determination and sustainable development - or at least, that's how it should be.

The Clean Development Mechanism (CDM), established under Article 12 of the Kyoto Protocol, represents the cornerstone of the regulated carbon market and has been for years the main access route for developing countries to the international carbon market. According to Lotz et al. (2009), this mechanism has facilitated the implementation of projects in developing countries such as Brazil, China, Mexico, South Korea and South Africa, among others, generating millions of dollars in Certified Emission Reductions (CERs). The structure of the CDM has laid the foundations for the development of future market mechanisms under Article 6 of the Paris Agreement.

The European Union Emissions Trading System (EU ETS) is the world's largest and most liquid carbon market, operating under a cap-and-trade system. This system has evolved significantly since its launch in 2005, refining its emission allowance allocation mechanisms and progressively expanding its sectoral coverage. The EU ETS has become a cornerstone of the European Union's policy to combat climate change and reduce greenhouse gas emissions cost-effectively (Díaz, 2014). The European Union could serve as an example for regional systems such as the Andean Community (CAN) for emissions trading, which have proliferated in the last decade, creating new market opportunities.

In Latin America, Mexico, Chile, and Colombia have been pioneers in the region in developing national carbon pricing systems, combining carbon taxes with emerging emissions trading schemes. Of these states, only one belongs to the Andean Community (CAN), but this does not limit market opportunities for emission reduction projects in the region. The trend towards interconnecting national and regional markets promises to expand trading opportunities and improve market liquidity.

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

METHOD

This research was based on documentary review, using the technique of analysis as a way of interpreting the texts. For this purpose, 15 articles were selected from the Scopus and Scielo databases.

The following criteria were considered for the selection of the archives: articles related to Carbon Credits and their impact in the Andean countries; included in the Scopus and Scielo databases and carried out from 2009 to 2022. Studies not related to the topic were excluded.

RESULTS

Comparative analysis by State

Colombia

Regional pioneer in carbon markets, Colombia has positioned itself as a regional leader in the development of carbon markets, so (Mendieta and Grueso, 2024) “projects have been implemented in Colombia to combat deforestation with the purchase of carbon credits at a corporate level” (p. 9), establishing a comprehensive regulatory framework that integrates carbon pricing instruments with market mechanisms. Law 1931 of 2018 represents a fundamental milestone in Colombian climate policy, establishing the legal framework for climate change management and laying the groundwork for the development of the national carbon market. This law not only defines the economic instruments for emissions mitigation but also establishes the institutional responsibilities and intersectoral coordination mechanisms necessary for its effective implementation.

The “Impuesto Nacional al Carbono”, implemented since 2017, has proven to be an effective tool for incentivizing emissions reduction in key sectors of the economy. This tax, which was initially applied to liquid fossil fuels, has gradually expanded to cover other fuels and sectors. The innovative “no causación” feature of the tax, which allows companies to offset their tax obligation through the cancellation of verified carbon credits,

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

has catalyzed the development of the domestic voluntary market and has created stable demand for emissions reduction projects.

The “Programa Nacional de Cupos Transables de Emisión” marks Colombia's latest advancement in regulatory framework development. This cap-and-trade system, currently in its design phase, aims to complement the existing carbon tax structure. While Colombia's system has made significant progress, it faces ongoing challenges, particularly concerning indigenous rights and their implementation. The intersection between carbon market mechanisms and indigenous territorial rights has emerged as a critical consideration that requires careful attention and resolution.

Pirá Paraná and the indigenous community of Cumbal and the falsification of prior consultation

In Colombia, despite REDD projects being internationally presented as beneficial for the environment, on July 15, 2022, the Pirá Paraná Indigenous Council and the Association of Traditional Indigenous Authorities of the Pirá Paraná River "ACAIPÍ" filed a legal protection action alleging the violation of their fundamental and human rights to self-determination, cultural integrity, autonomous government, and territory, in relation to the "REDD+ Baka Rokarire ~iatir+ ~dito" project.

The defendants were both the private companies that implemented the project and the environmental authorities in charge of authorizing and supervising it. The plaintiffs argued that due diligence standards regarding the fundamental rights of indigenous peoples were not applied, and they requested the immediate suspension of all activities related to the project, as well as the implementation of prior, free, and informed consultation.

The Twenty-sixth Criminal Court of the Circuit with Knowledge Function of Bogotá D.C. rejected the plaintiffs' arguments, declaring that the tutela was not appropriate in this case and that community members had knowledge of the project since 2021. The plaintiffs appealed, and on October 21, 2022, the Superior Court of the Judicial District of Bogotá, Criminal Division, upheld the judge's decision. On April 28, 2023, the Corte Constitucional

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

de Colombia (Constitutional Court of Colombia) selected this case for review, setting a precedent for other climate change mitigation and carbon emissions activities, especially regarding the rights of indigenous communities.

The case hearing was held on August 10, 2023, where the Court considered it important to provide clear judicial guidance on the implementation of these projects and determine if guardianship is the appropriate mechanism to challenge them. The judge established an exceptional suspension of judicial terms due to the case's complexity, the number of procedural subjects, and the nature of the impacts on fundamental rights. Additionally, information was requested from various involved institutions, such as the Ministerio del Interior (Ministry of Interior), IDEAM, CDA, Gobernación del Vaupés (Government of Vaupés), Masbosques, Soluciones Proambientales S.A.S. (Proambientales Solutions), Certificadora de Carbono S.A.S. (Carbon Certification Company), and the Ministerio de Ambiente y Desarrollo Sostenible (Ministry of Environment and Sustainable Development). The terms for ruling on the matter were suspended for three months, until November 10, 2023.

The absence of prior consultation persists in these projects, even when they are already implemented, as in the case "Comunidad Indígena Cumbal vs Gobernador y Corporación del Cabildo Cumbal (Cumbal Indigenous Community vs. Governor and Corporation of the Cabildo Cumbal) (2023)" in Colombia. In this case, the "Resguardo Indígena del Gran Cumbal" sued for the nullity of REDD+ carbon credits through a guardianship action filed in July 2023, alleging the violation of their rights to prior consultation, participation, informed consent, collective property, and environmental justice.

The community argued that a contract for the sale of carbon credits was signed by the governor, who had already finished his term as authority, without prior consultation with the community. On July 21, 2023, the Municipal Mixed Court of Cumbal-Nariño issued a ruling that granted the tutela action and ordered the entities to respect the constitutional rights of the community, as well as to suspend the implementation of the project until these rights are respected.

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

In August 2023, the former governor of the Cumbal Indigenous Cabildo, the legal representative of SPV Business S.A.S. and Global Consulting and Assessment Services S.A. C.V., and the head of the legal advisory office of the Ministerio del Interior (Ministry of the Interior) filed an appeal against the ruling. The former governor argued that prior consultation had not been violated, since at that time he had autonomy for the agreement as he represented the executive, legislative, and judicial power within the community according to Cumbal Indigenous Community vs. Governor and Corporation of the Cabildo Cumbal, 2023.

The Juzgado Tercero Penal del Circuito de Ipiales (The Third Criminal Court of the Circuit of Ipiales) decided to uphold the Municipal Court's ruling and reduce the prior consultation period from a maximum of six months to two calendar months, indicating that prior consultation is not only appropriate but mandatory. Additionally, the court ordered a six-month period for the ministerial office to make a decision regarding this request, following the standards of ILO Convention 169, the provisions of the United Nations Framework Convention on Climate Change, and the rules established in the Cancún Safeguards in accordance with Cumbal Indigenous Community vs. Governor and Corporation of the Cabildo Cumbal, 2023.

Peru: focus on transparency

The amazon has been “one of the world's largest carbon reservoirs due to its extensive forest biomass” (Díaz et al., 2024, p. 306). Based on it, the legal framework for carbon credits in Peru is based on several key regulations. The Framework Law on Climate Change (Law No. 30754), published in April 2018, establishes principles and general provisions to take advantage of low-carbon growth opportunities. This law is complemented by its Regulation (Supreme Decree No. 013-2019-MINAM), which implements the provisions of the Framework Law. Additionally, the Forestry and Wildlife Law (Law No. 29763) regulates the use, exploitation, and enjoyment of carbon sequestration environmental services.

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

The Ministry of Environment has implemented the National Registry of Mitigation Measures (RENAMI), a tool for registering and accessing information about mitigation measures and carbon credits generated in the country. Furthermore, Directive 001-2014-SERNANP regulates the procedure for administration contract holders to establish REDD+ projects in Natural Protected Areas and negotiate the resulting carbon credits.

It is important to note that Peruvian legislation recognizes the right of various actors to participate in carbon credit projects, including forest concessionaires, native communities, CUSAF contract holders, and public entities that manage forests such as SERNANP, SERFOR, and regional governments. Peru's National REDD+ Registry was designed to centralize information about carbon credit initiatives and projects, facilitate transparency, contribute to their legality, and safeguard the rights of forest and land users. Between 2015 and 2016, Peru's Ministry of Environment (MINAM) developed the National REDD+ Registry, revolutionizing the way Peru manages its national GHG inventory, providing a solid foundation for emissions and reductions accounting, and facilitating participation in international carbon markets. However, the registry information is currently no longer public which has led to different legal situations.

Peru and the lack of transparency

A project in Peru involves the Asháninka indigenous community in the central jungle. In 2008, the Cutivireni community faced an offer from a logging company to operate in their territory in exchange for a significant sum. To resist this offer, the members of Cutivireni contacted the NGO Ecotribal, which partnered with Cool Earth and Tree Flights to outbid the logging company in exchange for community rejection of their presence. Although the project was successful in preventing the entry of loggers and transferring funds to the community, problems arose such as internal confrontations, unequal distribution of funds, and limited management capacity. The indigenous federation CARE expressed concern about the TSIMI Association, managed by a single family that has historically exercised

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

dominance over the Cutivireni community, hindering an equitable distribution of economic benefits (Espinosa & Mancera, 2015).

In August 2011, due to the lack of agreement between the parties, the representative of BNP Paribas bank announced their withdrawal and suspension of activities related to the project until a satisfactory agreement could be reached. This situation highlights the complexity and challenges that can arise in the implementation of REDD+ projects in indigenous communities, emphasizing the importance of effective collaboration and respect for the rights and needs of these communities. Ladd & Peri (2013) stated that REDD++ is an essential option to promote the management of cO2 reduction and the preservation of forest reserves.

In April 2011, a congress of 22 indigenous organizations in Iquitos, under the sponsorship of COICA, proclaimed the declaration "There is no REDD+ without Territories, Rights and Autonomy of Indigenous Peoples," expressing their concern about communities' loss of control over ancestral territories. The groups agreed not to sign REDD+ contracts until the Free, Prior and Informed Consent process is guaranteed and agreed upon in detail, and REDD+ projects and programs are clearly defined at national and international levels.

In Peru, the proposed public database is no longer public, which means that to find out which projects exist, international databases must be consulted, including the Markit Financial Information Service or the VCS (Verified Carbon Standard) Program. According to these databases, there are 32 REDD+ projects in the country, of which at least 22 are active, with projects that began in 2006, with the Amazon Madre de Dios REDD Project, and the most recent in 2019, the Kana Smallholder Forestry Project.

Ecuador: on a specific path

Ecuador's legal framework, based on the Código Orgánico del Ambiente (Environmental Organic Code), establishes a structure developed through the Plan Nacional de Mitigación del Cambio Climático (National Climate Change Mitigation Plan) and the Ministerial Agreement No. MAATE-2023-053 (AM-053) under the direct supervision of the Ministerio

del Ambiente, Agua y Transición Ecológica (MAATE) [Ministry of Environment, Water and Ecological Transition], introducing the Unidades de Carbono Equivalente (UCE) [Carbon Equivalent Units] as the fundamental unit of measurement. Each Carbon Equivalent Unit represents one ton of CO₂ captured or avoided. According to Article 18 of AM-053, each credit must meet fundamental criteria such as being real, permanent, additional, verifiable, and avoid double counting.

The carbon project development process in Ecuador follows a defined systematic path. According to Article 39 of AM-053, the initial eligibility phase requires proponents to submit comprehensive documentation to MAATE, including property titles, detailed land use analyses, sworn declarations of non-impediment, and an initial environmental and social safeguards plan.

The structure has been mainly categorized into two areas according to Article 32 of AM-053: Land Use, Land Use Change and Forestry (USCUSS) projects, which focus on forest and territorial management, and projects in other strategic sectors such as energy, waste, industrial processes, and agriculture. Following Article 40 of AM-053, the detailed project design must include the identification of sources and sinks, baseline determination, additionality assessment, and benefit distribution as well as environmental and social safeguards plans. This design must be validated by a Conformity Assessment Body according to Article 47, verifying assumptions, evaluating limitations, and validating methods according to ISO 14064-3 standard (Saavedra, 2020).

The commercialization of UCEs in Ecuador is structured through three different pathways, as established by Article 24 of AM-053. Currently, Pathways 1 and 2 are operational, allowing national transactions without transfer to other Nationally Determined Contributions (NDC). For example, an industrial company that needs to offset its emissions can purchase UCEs from a local forestry project. The future implementation of Pathway 3 will allow international transactions, significantly expanding the market scope. Articles 56, 57, and 58 of AM-053 and (Atkins, 2019) refer that commercialization is carried

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

out through direct economic compensation, with a valuation that considers the generated co-benefits, requiring notification of withdrawal and deactivation of UCEs once used.

A distinctive element of the Ecuadorian system, according to Article 15 of AM-053, is its comprehensive approach to social and environmental co-benefits. Projects must demonstrate that they generate substantial benefits beyond mere emission reductions. For example, a project in indigenous territory must demonstrate that, in addition to capturing carbon, it contributes to biodiversity conservation, strengthens local culture, generates sustainable jobs, and protects water sources. According to Article 46, each project must consider a complete economic valuation that includes all implementation, validation, verification, measurement, and monitoring costs.

Credibility is verified through processes established in Article 52 of AM-053, centered on a comprehensive Measurement, Reporting, and Verification (MRV) system. This system requires detailed periodic measurements, such as in the case of forestry projects that must conduct periodic biomass measurements, maintain comprehensive records, and submit regular reports. All of this must be verified by Conformity Assessment Bodies (OEC) authorized by the Servicio de Acreditación Ecuatoriano (SAE) [Ecuadorian Accreditation Service], which act as independent auditors to ensure the system's credibility. However, this legislation seems to not have been implemented yet and problems continue in indigenous sectors.

The Yasuní National Park referendum

In Ecuador in 2023, the tension between environmental protection and indigenous peoples' rights on one side, and the State's economic interests on the other, became evident (Kania, 2019). Despite the majority of citizens voting in favor of protecting the Yasuní and rejecting oil exploitation, the government decided to continue extractive activities in Block 43 of the park. This decision has generated controversy and has been criticized by environmental organizations and indigenous rights defenders, who argue that

the consultation was not carried out in good faith and does not end all extractive activities in the protected area (Espinosa & Mancera, 2015).

In response to this situation, alternatives for protecting Yasuní's biodiversity and indigenous cultures have emerged, such as the implementation of a REDD+ project or the indigenous mechanism "Net Avoided Emissions" (NAE). The REDD+ project seeks to prevent fossil fuel exploitation in areas of high biological and cultural sensitivity, while the NAE mechanism, proposed by the Ecuadorian government in 2007, suggested leaving Yasuní's oil reserves unexploited in exchange for financial contributions equivalent to half of the income the country would receive if it exploited the oil. Although this latter initiative failed due to opposition from the international community, today it could be presented to obtain carbon credits.

The equivalence between the NAE project and carbon credits is based on the estimation of CO₂ emissions generated by oil combustion. It is calculated that one liter of oil produces approximately 2.3 kilograms of CO₂, and one barrel of oil (159 liters) would emit around 366.17 kilograms of CO₂. Therefore, one ton of CO₂ equals 2.73 barrels of oil. These calculations are fundamental for determining the value of carbon credits and comparing them with the income that the Ecuadorian State could obtain from selling oil in the international market.

In this context, it is important to analyze carbon credit and oil prices. At the beginning of 2023, the European Union estimated the value of a ton of CO₂ at €81.49, but by the end of February of the same year, the price exceeded 100 euros per ton emitted. On the other hand, the price of Brent crude oil has fluctuated between \$77.46 and \$86.07 per barrel in November 2023, averaging around \$80 per barrel. If Ecuador were to present a CO₂ mitigation project with the purpose of permanently leaving oil reserves in the subsoil, as a REA6.4 carbon credit project, it would obtain 100 euros in the European market for each ton of carbon credit, equivalent to 2.73 unexploited barrels.

Bolivia: A ruling that changes the constitution

The Constitutional Court Ruling 0040/2024 of June 19, 2024, declared unconstitutional a phrase in Article 32, numeral 5 of Law No. 300, thus eliminating the prohibition on the commodification of environmental functions and financing mechanisms associated with carbon markets. However, the current situation is characterized by the absence of specific legislation on how to manage and trade carbon credits in Bolivia, which could also happen in Ecuador, where there is a law, but the same constitutional prohibition exists.

Compared to other countries in the region that already have advanced legislation on carbon markets, Bolivia is in an initial stage of regulation (May et al., 2001). The opening of the carbon market in Bolivia presents both challenges and opportunities. This could benefit indigenous populations by allowing them to capture income through projects in protected areas. Bolivia's Ombudsman's Office (Defensoría del Pueblo) has asked the Constitutional Court (TCP) to clarify the ruling that authorizes carbon markets.

DISCUSSION

The CAN (Andean Community) presents a complex and diverse scenario regarding the development of carbon markets. Despite belonging to the same economic bloc, each State has adopted significantly different approaches in their regulatory frameworks and implementation of these mechanisms. Colombia has positioned itself as the regional leader, establishing a comprehensive regulatory framework that includes both carbon taxes and emissions trading systems, while countries like Bolivia are just beginning to open their doors to these markets following recent constitutional changes (Peña et al., 2021).

A common and critical element across all member countries is the tension between the development of carbon markets and indigenous peoples' rights, particularly concerning free, prior, and informed consultation. Documented cases in Colombia, such as the Pirá Paraná and the Indigenous Community of Cumbal, as well as experiences in Peru with the Asháninka community of Cutivireni, demonstrate that there is a significant gap

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

between theory and practice in the implementation of these projects. Lack of transparency, inequitable distribution of benefits, and the absence of adequate consultation processes are recurring problems throughout the region.

CAN countries face similar challenges regarding the implementation of transparent registration and monitoring systems. Peru, for example, developed a National REDD+ Registry that later ceased to be public, which has created problems with transparency and monitoring. Ecuador has established a detailed regulatory framework through Ministerial Agreement MAATE-2023-053, but its effective implementation is still in process. These cases illustrate the need to develop robust and transparent systems that are sustainable in the long term.

The Andean region presents unique characteristics that make it especially relevant for the global carbon market, including its extensive forest coverage and rich biodiversity (Rodríguez et al., 2017). However, there is significant untapped potential for regional cooperation and harmonization of standards among CAN member countries. The European Union's experience with its Emissions Trading System (EU ETS) could serve as a model for developing an integrated regional system that respects each country's particularities while promoting regional cooperation.

Recent developments in the region, such as the Yasuní referendum in Ecuador and the constitutional change in Bolivia, demonstrate that the CAN is at a crucial transition moment regarding its approach to carbon markets. These changes reflect the ongoing tension between economic development, environmental protection, and indigenous rights, as well as the search for innovative solutions such as the Net Avoided Emissions (NAE) mechanism proposed by Ecuador.

CONCLUSIONS

It is concluded that, despite different national approaches and existing challenges, there is significant potential for the CAN to develop a more cohesive and effective regional carbon market. However, this will require a firm commitment to protecting indigenous

Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

rights, developing common protocols, implementing transparent registration and monitoring systems, and greater cooperation among member countries. The future success of these markets in the region will largely depend on countries' ability to balance climate change mitigation objectives with the protection of human rights and climate justice.

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Jesús Ramón Jaimes-Becerra; Jenny Marlene Villegas-Solís; Génesis Andrea García-Quezada; Jimena Alexandra Campaña-Chaglla

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