In the communities of Catatumbo, a region in Colombia notorious for armed disputes and weak state presence, there is a strong connection between the armed conflict and environmental degradation and its effects.

The conflict is also linked to the extractive model and to legal and illegal economies. It affects rural property rights and institutional responses, which are scarce and militarized.

In order to implement policies that focus on rights, climate justice and land justice, a series of recommendations are made to the state, civil society and international organizations.
PAZ Y SEGURIDAD

VIOLENT
CONFLICT
AND ENVIRONMENTAL
DEGRADATION
IN CATATUMBO
## CONTENTS

1. INTRODUCTION 4  
2. METHODOLOGY 6  
3. MAIN FINDINGS 7  
4. THE CATATUMBO REGION 9  
5. THE RELENTLESS IMPACT OF THE ARMED CONFLICT 12  
6. LEGAL AND ILLEGAL ECONOMIES 16  
7. PROPERTY, PROPERTY RIGHTS, THE EXTRACTIVE MODEL AND CONFLICTS 25  
8. CHANGES IN THE DYNAMICS OF THE ARMED CONFLICT AFTER THE SIGNING OF THE PEACE AGREEMENT 27  
9. INSTITUTIONAL RESPONSES 34  
10. FUTURE SCENARIOS 39  
11. RECOMMENDATIONS 41  

BIBLIOGRAPHY 45  
APPENDIX 1. TERRITORIAL AND ENVIRONMENTAL MANAGEMENT FIGURES IN CATATUMBO 51
INTRODUCTION

This report identifies and analyzes several key aspects of the relationship between violent conflict and environmental degradation, based on the Catatumbo case study. Historically, state presence in this region of Colombia, which borders with Venezuela in the northeast, has been precarious. The region has also been the scene of prolonged and bloody armed disputes. In addition, for over a decade, it has been one of the largest coca growing regions in Colombia and the world. In recent years, it has received a large influx of migrants from Venezuela.

Understanding the relationship between violent conflict and environmental degradation is important because of their pervasive effects on the wellbeing of people and ecosystems. Excluded and marginalized groups, their territories and ecosystems of special ecological importance generally suffer the worst consequences of this relationship. Although climate change and environmental degradation are not the direct consequences of wars, they can become risk factors for the outbreak or exacerbation of armed conflict in specific contexts (Smith and Vivekananda, 2007; Burke et al., 2009; Adger et al., 2014; Mach et al., 2019). The consequences of climate change (more intense and frequent natural disasters, changes in rainfall, more extreme climates, among others) can lead to a loss of livelihoods, soil erosion, a lack of water, land and food, decreased agricultural production, rising food prices and economic recessions. These consequences may catalyze violent conflicts in contexts where states, armed actors or other stakeholders create dynamics that deepen inequality and injustice among groups in terms of access to resources, the fulfillment of rights and the exercise of citizenship. A less explored subject is how violent conflicts influence climate change and environmental degradation. The impact that violent conflict has on nature has been rendered invisible for years: there is a lack of proof and systematic data, while policies for protection and conservation have generally lacked a conflict approach. Nevertheless, in recent years a series of regulations and laws have addressed the effects of war on the environment and the need to recognize nature as a rights-holder.

In Colombia, the Jurisdicción Especial para la Paz (Special Jurisdiction for Peace, JEP for its acronym in Spanish),

---

1 The relationship between violence and the environment is rooted in the history of warfare. The United Nations Environment Programme (UNEP) estimates that, over the past sixty years, 40% of interstate conflicts have been linked to natural resources. Even so, less than 25% of peace negotiations address resource management. Between 1950 and 2000, eight of every ten armed conflicts took place in highly biodiverse regions (Hanson et al., 2009: 578-587).

2 In New Zealand, for example, the legislative branch ratified the AwaTupua Act law, which awards legal personhood to the Whanganui River and designates one indigenous tribe member and one government member to represent it. In the United States, similar attempts have been made, but have failed (Botina, 2020). In Colombia, the high courts have recognized several rivers, moorlands and other ecosystems as rights-holders and, therefore, as deserving of special protection, including the Atrato (Chocó), Cauca, Magdalena, Quindío, Pance (Valle del Cauca), La Plata (Huila), Otún (Risaralda) and Combeima, Cocora and Coello (Tolima), rivers; the Piba moorland (Boyacá), the Amazon region and the Via Parque Isla de Salamanca (Magdalena). However, compliance with the obligations these rulings entail has been very slow, because the entities responsible for ensuring compliance have not had access to sufficient budget, in addition to a lack of institutional organization and political will (Semana Sostenible, 2021).

3 The JEP is one of the components of the Sistema Integral de Verdad, Justicia, Reparación y no Repetición (Comprehensive System of Truth, Justice, Reparation and No Repetition) which is the legal framework for the Special Jurisdiction for Peace (JEP) established by the National Peace Treaty (2016). It has jurisdiction over crimes committed by and against non-state armed groups and individuals in the context of the armed conflict, except crimes committed against civilians, and it is based on the principle of the rule of law and the rule of law, as well as the principle of legal certainty and the right to a fair trial.
the institution responsible for transitional justice, stated that nature has been a “silent victim” of the armed conflict. Actions like deforestation, fumigating illicit crops with glyphosate, blowing up oil pipelines and the contamination of water, soil and rivers due to mining harm nature; yet they all took place during the war in Colombia, overwhelmingly impacting peasant, indigenous and Afro-descendent communities and their relationship with their territories.4

The link between violent conflict and environmental degradation is not direct. The experiences of Myanmar and Colombia, for example, show that this relationship is neither unequivocal nor sequential (Borras Jr., Franco, Park, Barbesgaard, Sekine, Myint and Zin, 2018; Guio and Rojas, 2019). Under specific conditions and at certain times, war can have protection or conservation effects on territories and ecosystems; in other circumstances, it creates serious environmental damage. In addition, transitions towards post-conflict processes can be accompanied by resource grabbing, deepening inequality, pollution, a loss of ecologically important areas and the legalization of the dispossession that took place during the war. It is important to understand under what circumstances, how and why violent conflict can drive or prevent environmental degradation and climate change.

With the aim of understanding these dynamics, this report analyzes the case of Catatumbo, an area known for being immensely environmentally and culturally rich, which continues to be gravely affected by the armed conflict. The objectives of the report are:

- To analyze the factors and actors associated with the violent conflict that cause environmental degradation and its impact on local communities.
- To identify under what circumstances the armed conflict resulted in the protection of ecosystems of special ecological importance.
- To analyze institutional responses to the armed conflict and environmental degradation, their positive and counterproductive effects, limitations and failures.
- To make recommendations to state institutions, civil society, and international organizations, with the aim of broadening understanding of the relationship between violent conflict and environmental degradation, and implementing policies from a perspective of rights, climate justice and land justice.

---

2

METHODOLOGY

This report is based on a review of secondary sources, including academic literature, civil society reports and official documents, as well as online and in-person interviews carried out during two research trips to the region during the months of November and December of 2021. The interviews provided knowledge about the positions of social leaders, organizational platforms, grassroots organizations, local and regional institutions, international cooperation organizations and local non-governmental organizations, among others. The research prioritized the analysis of four aspects:

- The dynamics of the armed conflict.
- The prevailing extractive model, evidenced by the prioritization of certain legal and illegal economies.
- How insecurity and instability affect rural property rights and environmental management.
- The failure to implement policies aimed at peace and environmental protection, and the inadequate institutional responses that exacerbate the effects of violent conflict on environmental degradation.

---

5 Extractivism is a concept that refers to the exploitation and extraction of natural resources for trade on the international market, with little or no processing, and which causes harm or degradation to the environment.
VIOLENT CONFLICT AND ENVIRONMENTAL DEGRADATION IN CATATUMBO

3 MAIN FINDINGS

The main findings, based on the interrelation of the four factors above, are:

- Environmental degradation in a context of war, such as the one being experienced in Catatumbo, is strongly associated with the armed and economic power relations that govern and decide who has access to land and resources and in what way (and, therefore, who is excluded). The dominance of armed groups is unstable and there is a constant struggle for control to impose coercive forms of governance on populations and their territories and for access to their resources. In addition, priority has been given to extractive economic models that were consolidated in the aftermath of the worst periods of violence suffered by the inhabitants. These models were built on the violent dispossession of the inhabitants’ land, in violation of the regulations that protected displaced populations and sought to avoid land grabbing, such as the Unidades Agrícolas Familiares (Family Agricultural Units, UAF for its acronym in Spanish).  

- The link between violent conflict and environmental degradation is also associated with the articulation of local and global dynamics that are part of the capitalist development model that promotes the exploitation, production, commercialization, and consumption of certain products, such as land, oil, coal, gasoline, cocaine, and palm oil, among others. Global demand for these resources explains changes in local land use, violent dispossession of land and changes in rural property that seriously affect the rights of rural communities.  

- Illegal economies are not the only ones associated with environmental degradation. Legal economies based on inappropriate resource exploitation also cause environmental harm. Armed actors use these economies to make a profit and expand their control over territories and local populations by demanding that the legal companies exploiting the natural resources make extortion payments.  

- The “border effect” is a structural aspect that drives and facilitates illegality in Catatumbo. In recent years, this effect has worsened due to the lack of diplomatic relations between Bogotá and Caracas, compounded by the fact that the Colombian and Venezuelan authorities around the border areas share no regulations or communication channels. This has provided non-state armed groups with an area where they can evade military operations and take over the role of controlling legal and illegal economic dynamics as well as illegal border crossings, by collecting tolls at these points, for example. Actions like these generate significant income for these groups and for certain sectors of the local population (transport workers, peasants, smugglers). These dynamics have caused cross-border environmental impacts, aggravated by little or no binational cooperation to address them. (In July 2022, Gustavo Petro’s Government announced its intention to reestablish diplomatic relations).
The needs and interests the armed groups had in resources at certain times during the war (as well as their ideological differences) are evidenced in the environmental regulation practices they deploy in their territories. The FARC combined extremely harmful actions against nature with other types of regulations that could be classified as conservationist. However, the data indicate that with the reconstitution of the violent dynamics following the signing of the Peace Agreement, the practices of armed groups have tended to cause extensive environmental harm.

Land dispossession in the context of the armed conflict, insecurity, and instability in terms of rural property rights, in addition to the prioritization of extractive economies, have led to the continuous expansion of the agricultural frontier in Catatumbo. This has been carried out through the forceful displacement of populations to forest and jungle areas, changes in land use to uses that oppose its natural purpose and the deepening of land and climate injustice.

Ecosystem destruction in Catatumbo contributes to climate change and aggravates the vulnerability of populations that are already marginalized and suffering from multiple crises. Environmental degradation weakens communities’ resilience and drives them to illicit economies that are profitable in the short term, as it becomes increasingly difficult to work in legal sectors (food/agricultural production). This situation makes it easier for illegal armed groups to capture and recruit—sometimes, although not always, by force—sectors of the population who are then put to work in various roles: as combatants, intelligence or illicit crop workers or carrying out daily tasks (like cooking), which often entail the labor and sexual exploitation of women and girls, who are, in many cases, migrants in a state of deep vulnerability. Extreme weather events could increasingly affect the region in the near future and local populations lack the tools to cope with the consequences.

The 2016 Peace Agreement opened a window of opportunity to change the conditions that triggered the armed conflict and its negative environmental consequences. However, failure to comply with several crucial points of the Agreement, compounded by the implementation of militaristic policies in the territories and the prioritization of an extractive development agenda have caused serious consequences, such as the increase in violence against social and environmental leaders as well as peasant and ethnic communities, the weakening of organizational processes and direct and indirect negative effects on nature.

---

7 The agricultural frontier is the boundary between the unspoiled natural landscape (conservation areas, biodiversity protection zones or vacant land) and the territories transformed by agricultural activities. This means that it is a changing area that undergoes a continuous and dynamic transition process of different forms of occupation and productive organization of the space for agricultural purposes.

Institutional state presence in the region has been very precarious. Public infrastructure and services are lacking, and levels of poverty and exclusion are high: the average index of Unsatisfied Basic Needs (UBN) in the municipalities of the region is 41.4%, much higher than the national index (14.1%). Lack of basic education is a serious problem: 29.3% of children do not attend schools. As to housing, 32% of homes do not have electricity, 85.2% do not have running water and 93.1% do not have a sewage system (Hoja de Ruta Catacumbo, 2020: 61). By the end of 2021, there were 18,329 Venezuelan migrants in the region, approximately 9.8% of the total settled in Norte de Santander, the department with the second highest presence of migrants after Bogotá (Fundación Ideas para la Paz, 2021, with migration data taken from the Ministry of foreign Affairs, 2021).

Catatumbo’s territory has undergone social and environmental change, not only due to settlement processes and lack of integration with national powers, but also due to the emergence of many diverse organizational and social processes and their resulting economies, the violence of the armed conflict, the cross-border connection and, most recently, due to the implementation of peace and environmental governance policies (Apon-te, Arboleda and Barrera, 2016; Barrera, Carvajal and Aponte, 2017). In the absence of public infrastructure and services, Catatumbo inhabitants organized in as-
sociations and cooperatives that energized the peasant economy for decades. These organizations drove processes of social mobilization and dialogue with the local, regional and national authorities, demanding the constitutional fulfillment of their rights and promoting specific proposals to strengthen their territories. However, their mobilizations have often been repressed and, in other cases, the agreements reached as a result of the mobilizations were not complied with (Procuraduría General de la Nación, 2020: 11).

Map 1
Location map. A) Norte de Santander Department in Colombia; B) Catatumbo Region in Norte de Santander Department; C) Catatumbo Region municipalities

Source: prepared by Nicolás Vargas-Ramírez based on: political-administrative division and terrain (Instituto Geográfico Agustín Codazzi 2011, 2022).
Map 2
Indigenous Resguardos, Intended Peasant Enterprise and Forest Reserve Zones, and Natural Protected Areas in Catatumbo

THE RELENTLESS IMPACT OF THE ARMED CONFLICT

This region has been one of the most affected by the war. In 2021, it had approximately 315,195 inhabitants. Between 1958 and 2020, the state recognized 316,268 people as victims (Fundación Ideas para la Paz, 2021, with data from the Registro Único de Víctimas (Unique Register of Victims, RUV for its acronym in Spanish).

The guerrilla movement has been present since 1970. First, the Ejército de Liberación Nacional (National Liberation Army, ELN for its acronym in Spanish) (photograph 1) entered the territory and, in the 1980s, the Ejército Popular de Liberación (Popular Liberation Army, EPL for its acronym in Spanish) and the Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo (Revolutionary Armed Forces of Colombia-People’s Army, FARC-EP for its acronym in Spanish) began to operate there. These groups exercised different kinds of violent regulations in communities and territories. In the late 90s, paramilitary groups began their actions, especially the bloque Catatumbo de las Autodefensas Unidas de Colombia (Catatumbo bloc of the United Self-Defense Forces of Colombia, AUC for its acronym in Spanish) and the Autodefensas del Sur del Cesar (Sur del Cesar Self-Defense group). This intensified the conflict and increased human rights violations (Vargas and Uribe, 2017; Aponte, 2012; Centro Nacional de Memoria Histórica, 2017). Following the demobilization of these groups in 2005, new paramilitary structures emerged, present to this day.

The army also targeted the civilian population. This was one of the several regions affected by actions known as falsos positivos (false positives) (Ortega, 2021): extrajudi-

13 This term refers to the ability and possibility armed actors have to shape the daily lives of the inhabitants of a territory by imposing specific, defined rules through violence.

social executions of civilians whom the military authorities presented as guerrilla members killed in combat.

As section 8 (“Changes in the dynamics of the armed conflict after the signing of the Peace Agreement”, pp. 27-33) explains, after the Peace Agreement was signed, there was a reshaping of the violent dynamic in which the FARC dissidence and paramilitary and organized criminal groups, such as the Autodefensas Gaitanistas de Colombia (Gaitanist Self-Defense Forces of Colombia, AGC for its acronym in Spanish) and the Rastrojos, engage in today. The region has not experienced peaceful times in many decades. On the contrary, violence intensified and several armed strikes affected the provision of food and supplies in local communities.

Social leaders, human rights defenders, women, and former FARC combatants in the process of reintegration have been particularly victimized since the signing of the Agreement. Between 2017 and March 31, 2020, the Office of the United Nations High Commissioner for Human Rights (UNHCHR) reported the murder of at least eleven human rights defenders, and the United Nations Verification Mission registered the murder of sixteen former FARC members in the Norte de Santander department (Procuraduría General de la Nación, 2020: 12). For its part, the Corporación Departamental de Defensores de Derechos Humanos (Human Rights Defenders

14 An armed strike is a general action led by an irregular group that forces the population of certain areas to stop all economic, social, academic and mobility activities for a specific period of time determined by said group. It is called “armed” when it is led by an irregular group (guerrilla or paramilitary groups).

15 Online interview with a human rights defender from Catatumbo, December 5, 2021.
Departmental Corporation Network (Corporeddeh), reports that in 2021, ten human rights defenders were killed in Norte de Santander and that in the last four years this figure amounts to forty people murdered (Report on aggressions to social leaders and human rights defenders in the Norte de Santander department 2021 / Fourth report 2021).

5.1 INSECURITY, CRIMINALITY, AND INEQUALITY IN RURAL PROPERTY RIGHTS AT THE HEART OF THE VIOLENT CONFLICT AND ENVIRONMENTAL DEGRADATION

Land informality and insecurity, its unequal distribution (Procuraduría General de la Nación, 2020: 12) and the waves of land and territory dispossession suffered by peasant, indigenous and Afro-descendent communities have been at the heart of the armed conflict in Colombia —and, of course, Catatumbo— and its impact on environmental degradation

16 “Who suffers most is nature” stated an environmental engineer who resides in this region, when talking about the consequences of the conflict’s current dynamics. The concentration of land in the hands of a few individuals and the prioritization of extractive economies, added to violent land expropriation carried out by large capitals or armed groups, have caused the continuous expansion of the agricultural frontier and the forced displacement of populations to forest and jungle areas, changes in land use to uses that oppose its natural purpose and the deepening of land and climate injustice.

The Colombian government has played an important role in these processes because, despite its weak institutional presence, it has promoted unequal and unstable rural property rights and economic models that oppose the territories’ environmental purpose, causing environmental conflicts in a context of war

17 Three examples are the concessions to extract coal, palm oil and oil.

16 Colombia has the most unequal Gini coefficient in Latin America and one of the most unequal in the world.

17 Interview with an environmental engineer from the Fundación Humedales Catatumbo, November 17, 2021.

18 Three examples are the concessions to extract coal, palm oil and oil.
Ideas para la Paz, 2021) and mechanisms have not been put in place to address the legal battles being waged over the same areas of land between peasant and indigenous communities, which exacerbates territorial conflicts.

5.2 PROPERTY INFORMALITY, LAND USE AND RURAL CONFLICTS

As in large expanses of Colombia’s rural areas, Catatumbo does not have an updated rural cadastre. This makes it impossible to know who owns the land and how it is used, which facilitates dispossession and illegal land grabbing processes. Informality is common when it comes to rural properties. People do not have full ownership or formal titling (deed and registration of their title with the Public Instruments Registry Office) and make land purchases and sales through verbal agreements or sales contracts that are not always registered. The informality index of rural property is 0.7%, much higher than the average in the rest of the country (0.54%) (Ministerio de Agricultura y Desarrollo Rural, n.d., quoted in Procuraduría General de la Nación, 2020: 10).

Currently, the agricultural frontier in Catatumbo—the land designated for the development of agricultural activities—includes 29.7% of the territory (289,162 ha). The extractive oil and coal economies, as well as the agricultural economy, have used deforestation to extend and expand the agricultural frontier. Although in the 2016 Peace Agreement the parties envisaged creating the conditions necessary to solve this problem, significant areas of forest are lost daily in Catatumbo to other uses.

Other conflicts, associated with the above, arise in relation to land use. Only 14.7% of the land surface is suitable for agricultural activities, but 17.5% is used for this purpose. And only 1.7% is suitable for livestock farming, but 25.1% is used for this purpose. 80% is designated for forest, but forest cover is 49.2%. According to the Unidad de Planificación Rural Agropecuaria (Rural Agricultural Planning Unit, Upra for its acronym in Spanish), 60.2% of the land does not present conflicts, but there are conflictive situations in 34%, mainly due to overuse (31.4%) and underuse (4%). Allocating land to uses that oppose its environmental and social purpose has negative consequences for the environment and for local communities, including deforestation, erosion and threats to food and territorial sovereignty.

19 In recent years, Colombia went from having 2.25% of its territory registered in an updated cadastre, to having 15.39% registered, equivalent to 17.56 million hectares, thanks to the multipurpose cadastre policy (Igac, 2021).

20 Natural forests and non-agricultural areas remain outside the agricultural frontier, 41.9% (407,845 ha) as do other areas that correspond to environmental and archeological heritage criteria: 28.4% (276,731 ha) (Fundación Ideas para la Paz, 2021: 24).

With the arrival to Catatumbo, in the late 90s, of paramilitary groups backed by the army and the police (Tribunal Superior del Distrito de Bogotá, 2014), human rights violations against civilians increased through massacres, homicides, forced recruitment and sexual violence. These and other crimes led to the mass displacement of residents. Forced displacement entailed large scale abandonment and later dispossession of rural land.

Between 2005 and 2010, after paramilitary demobilization, the land transaction market grew, with significant concentration and use of land. In addition, oil palm monocultures, livestock and mining and energy exploitation expanded.

Land buyers acquired more than 8,000 hectares through the market, but in violation of the rules (SNR, 2012). For example, many purchases exceeded the accumulation limitations established by the UAF; other transactions were made well below the fair price, taking advantage of the sellers’ conditions of vulnerability caused by the war (Unidad Administrativa Especial de Gestión de Restitución de Tierras Despojadas, 2012; Uribe, 2014; Vargas y Uribe, 2017).

Oil palm monocultures expanded in the context of biofuel promotion to fight climate change, and as an ideal substitute for coca. That is why they received support and financing from the national government, through rural capitalization programs and incentives for interested groups. But the process took place in a context of war and unstable rural property rights, violating the laws that protected the territories of local and displaced populations.

The expansion of oil palm monocultures and of coal and oil exploitation directly affected the contamination of water sources, reduced the peasant economy centred on food sovereignty, and increased soil erosion.

The growing land surface used for oil palm, coca, livestock, coal and oil means that, in Tibú, there is not sufficient land available within the agricultural frontier to provide reparations and restitution to the victims of land dispossession caused by violence (Uribe, 2014).

---

1 Between 1985 and October of 2014, 52,481 people were displaced from Tibú, 37,490 of them (71%) between 1999 and 2004.

2 Small properties fragmented, meaning that properties of less than 10 hectares became smaller, whereas the medium and large properties increased in size and number. The area of rural properties increased by 14,635 hectares between 1999 and 2010; the largest increase, of 6,297 hectares, occurred in properties over 1,000 hectares; followed by those in the ranges of 50 - 200 hectares, with an increase of 4,037 hectares; and the 200 - 1,000 and 10 - 50 ranges, with increases of 2,723 and 1,578 hectares respectively (Uribe, 2014: 25).

3 Interview with a peasant leader, December 2021. The land Gini coefficient, which measures inequality, grew from 0.52 in 2005 to 0.67 in 2011 (Igac, 2012). Likewise, land use became even more concentrated due to the expansion of oil palm plantations on peasants properties. Palm crop cover went from 0 in the year 2000 to 6,077 hectares in 2009 (Uribe, 2014).

4 Government incentives for oil palm crops contrast sharply with the minimal or non-existent incentives for the sector of small-scale farmers. Between 2007 and 2014, 86% of all rural capitalization incentive funds were allocated to oil palm projects. Only 14% were allocated to other basic products (Vargas and Uribe, 2017: 753).
LEGAL AND ILLEGAL ECONOMIES

6.1 COCA CROPS

Between 1998 and 2012, approximately 608,000 hectares of forest were cleared in Colombia to make space for coca crops. In 2020, the country had 143,000 hectares of coca, making it the country with the largest extension of coca crops in the world. Norte de Santander, where Catatumbo is located, had 40,116 hectares and Tibú had 19,334, 13% of the national total. Four of the ten municipalities with the highest levels of coca cultivation are located in this region: Sardinata, El Tarra, Teorama and Tibú (map 3).

Several factors contributed to the increase of coca crops in the region. First, the disappearance of FARC-imposed environmental regulations and deforestation restrictions after the group demobilized. Second, the Mexican cartels made a huge injection of capital into drug trafficking and increased direct purchases from actors such as the 33rd front (FARC) dissidences. Third, the influx of Venezuelan migrants, often through the unpaved roads that lead directly to the coca growing regions, provided plantation owners with abundant, cheap labor.

25% of the cocaine base paste produced in Colombia comes from Catatumbo. This region has the second highest production potential per ton of processed coca leaf in the country, after the Pacific area of the Nariño region. According to calculations by the Sistema Integrado de Monitoreo de Cultivos Ilícitos (Integrated Illicit Crops Monitoring System, Simci for its acronym in Spanish), Catatumbo growers obtain an estimated 2.02 kg of paste per ton, whereas in the Pacific, they get 2.38 kg per ton and in Orinoquia only 1.19 kg (Unodc, 2021). It is estimated that the commercialization of coca base paste in the region generates approximately US$340 million annually.

All the armed actors profit from illicit crops by demanding taxes or by direct participation in drug trafficking. Guerrilla organizations tax the cultivation, processing and commercialization of coca, cocaine base paste and cocaine. This means that they tax the same supply chain three times. For every kilogram of base pasted handled, close to COP500,000 (Colombian Pesos) (about US$135) are paid in taxes. The entry of supplies such as cement, fuel and chemicals is also taxed.

The clearing of forests for coca cultivation is one of the main drivers of deforestation in Catatumbo: for every hectare of coca, around two hectares of forest are cut down. Some experts claim that deforestation caused by this dynamic has stopped, because in the last two years

---

23 “Monitoreo de territorios afectados por cultivos ilícitos 2020”, Unodc, July 2021.
24 Interviews with international cooperation representatives, November 26, 2021.
25 Interview with international cooperation representatives, November 26, 2021.
26 All figures in Colombian Pesos are also shown in U.S. Dollars, calculated at an exchange rate of COP 3,700, which corresponds approximately to the average rate of the last 6 months.
27 Interview with an international cooperation representative, November 26, 2021; former high-ranking FARC leader, December 1, 2021.
the number of crops has stabilized\textsuperscript{28}. Others argue that this is rather a symptom of the advance of the so-called agricultural frontier. This was verified during field work: the lands that were previously used to grow coca are now used for cattle grazing\textsuperscript{29}.

Between 1990 and 2015, as part of the war on drugs, the state carried out aerial fumigation using glyphosate. This polluted the soil and drove growers deeper into forests and protected areas. The discharge of chemicals used to make base paste and cocaine into water sources has exacerbated the problem. According to the Colombian Ministry of Defense, approximately 700 liters of chemicals are needed to produce 1 kg of cocaine\textsuperscript{30}.

### 6.2 LIVESTOCK FARMING

Livestock farming and land speculation are the main drivers of deforestation in Colombia\textsuperscript{31} and Catatumbo is an...
example of this. According to the 2021 Censo Nacional Agropecuario (National Agricultural Census), in the eleven municipalities of Catatumbo (Abrego, Convención, El Carmen, El Tarra, Hacarí, La Playa, Ocaña, San Calixto, Sardinata, Teorama and Tibú) there are 152,789 cows, 36,000 more than in 2016, the year the Peace Agreement was signed.

Unlike the main cattle breeding-regions in Colombia, Norte de Santander lacks a highly concentrated agricultural structure, as is the norm across the country: close to 90% of cattle-raising properties are less than 50 hectares in size. In areas of Tibú, the agricultural frontier is expanding due to cattle ranching and land that was previously cultivated with coca is now being used for cattle. In Rio de Oro, for example, one person cleared 100 hectares to raise buffalo to produce meat, dairy products and to transport carts loaded with oil palm fruit.

The profits from the illicit drug industry are easily laundered through the cattle industry, as both sectors rely primarily on cash transactions. Some criminals prefer to invest their money in cattle instead of keeping large amounts of cash. In turn, the non-state armed groups tax cattle farming. Some charge a monthly fee per animal, whereas others charge per transaction (about COP50,000, US$13.5), and there is even a tax on the milk produced. A large part of Catatumbo cattle is smuggled from Venezuela. One local expert estimates that a third of the cows in Tibú come from the neighboring country, where calves are much cheaper. The authorities claim that it is difficult to control cattle smuggling due to a lack of staff, security issues and the existence of farms that have entrances on both sides of the border. Although the phenomenon has diminished due to the Venezuelan crisis, the devaluation in Colombia may change the dynamic, given that the U.S. dollar is used for cash transactions in Venezuela.

6.3 AFRICAN PALM

Since the end of 2019, over 40,000 hectares of oil palm trees have been planted in Norte de Santander (map 4); more than half are located in Tibú, on the main road connecting Campo Dos, in the south, and La Gabarra, in the north.

Oil palm trees were proposed as a coca crop substitute in 1998, when Carlos Murgas was Minister of Agriculture. Murgas is the owner of the main palm oil company, Oleoflores, which has an extraction plant in Catatumbo. In 2021, with the support of the United States Agency for Development (USAID), 133 families in the area became involved in oil palm projects in an area of 1,000 hectares (Centro Nacional de Memoria Histórica, 2018).

32 Instituto Colombiano Agropecuario (Colombian Agricultural Institute, ICA for its acronym in Spanish), 2021; ICA, Censo Nacional Agropecuario, 2016.
33 Focus group with community leaders from Catatumbo, November 29, 2021. According to the Censo Nacional Bovino (National Cattle Census) (2021) of ICA, in Norte de Santander, there are 19,891 disaggregated plots, distributed as follows: farms of 1-50 hectares (17,948 plots), farms of 51-100 hectares (1,289); farms of 101-500 hectares (615 plots); farms of 501 or more hectares (38).
34 There are cows and buffalo in the area. A buffalo requires three times as much land as a cow.
35 Focus group with Catatumbo community leaders, November 20, 2021.
36 Interview with an international cooperation representative, November 26, 2021.
37 Interview with an international cooperation representative, November 26, 2021.
38 Interview with a local security expert, July 2021.
39 Interview with a public official of the judiciary, December 2, 2021. 29 of the 40 municipalities in Norte de Santander have banned the sale of cattle to other Colombian municipalities due to their proximity to the border, posing a risk of commercializing cattle that have not been vaccinated against foot-and-mouth disease in Venezuela. Interview with a leader of the livestock industry, December 2, 2021.
40 Interview with a leader of the livestock industry, December 2, 2021.
41 “Cultivos de palma por un Catatumbo sostenible”, Semana, November 30, 2019.
Map 4
Oil palm crops and processing facilities in Catatumbo by 2021

Source: prepared by Nicolás Vargas-Ramírez based on political-administrative division and terrain (Instituto Geográfico Agustín Codazzi 2011, 2022), oil palm crops and processing facilities (Federación Nacional de Cultivadores de Palma de Aceite 2021).
The violence perpetrated by paramilitary groups paved the way for investors. They terrorized inhabitants to the point that people were forced to sell their plots and properties at very low prices. “If we didn’t sell, they would kill us”, one testimony recounts. Paramilitary proxies purchased land which was later sold to large palm growing companies through intermediaries.

Armed actors profit from the business by extorting large plantation owners: estates with more than 100 hectares of palm pay a fee –known as vacuna, which means injection in Spanish– calculated on the basis of the total number of hectares. Small growers do not pay extortion fees, but the associations they belong to are obliged to pay.

Meanwhile, palm fruit is smuggled into the country from Venezuela and then laundered into the Colombian production chain, thus avoiding import taxes. The price has risen significantly, reaching COP800,000 (US$216.2) in 2020, but some sources claim that palm fruit trafficking has changed with the weakness of the Colombian peso and the use of the dollar for most cash transactions in Venezuela. These factors have led to payments of COP1,000,000 ($270.2) for one ton of palm fruit in that country.

Recently, families from outside the region have arrived to expand the palm frontier. According to a community leader in Campo Dos, “they do not hesitate to clear, to destroy the forest”. Often, the profits made from the coca crops are reinvested in palm.

“[It’s] a way to ensure profitability. Monocultures destroy biodiversity, but the plantations also use up water sources. One palm tree consumes up to 50 liters of water per day, and entire wetlands have been drained to expand the plantations”. “We benefitted from it in some ways, but it also harms us. It harms our water sources.”

### 6.4 COAL MINING AND MINING TITLES

Norte de Santander also has coal and mineral deposits for subterranean and open-pit mining. There are 300 legal mines with titles and environmental licenses, and coal is extracted from 60% of them (map 5). An additional 150 mining titles do not have environmental licenses and some of them operate illegally. In addition, there are illegal mines that have no titles. Coal produced in Catatumbo is used locally or exported.

Before the pandemic, production in the department amounted to 2.5 million tons per year, of which about 80% is exported to more than 25 countries.

Small mines can produce around 100 tons per month, whereas the larger ones can produce over 1,000. Most of the coal from illegal mines is stored in stockpiling centers, where it gets mixed with the coal from authorized mines and thus legalized. “One invoice from a different legal mine, and that’s it”, said a public official of the judiciary.

Armed actors collect taxes from coal mining, and the fees depend on the amount extracted. Depending on quality, each ton is worth between COP100,000 and 300,000 (US$27 and US$81, respectively). Extortion pay-

---

42 Focus group with Catatumbo community leaders, November 29, 2021.
43 Focus group with Catatumbo community leaders, December 1, 2021.
44 Interview with a public official, Cúcuta, December 2019.
45 Focus group with Catatumbo community leaders, November 29, 2021.
46 Focus group with Catatumbo community leaders, November 29, 2021.
47 Interview with an environmental engineer from the Fundación Humedales Catatumbo, November 2021; telephone interview with a forestry engineer from the Fundación Humedales Catatumbo, April 12, 2021.
48 Focus group with Catatumbo community leaders, November 29, 2021.
49 Interview with a public official, December 9, 2021.
50 Interview with a public official, November 26, 2021.
51 “Carboneros de Norte de Santander proyectan producir 2,5 millones de toneladas”, La Opinión, March 2, 2021.
52 Interview with an officer of the judiciary police, December 2, 2021.
Map 5
Current Mining Concessions in Catatumbo by 2022

Source: prepared by Nicolás Vargas-Ramírez based on political-administrative division and terrain (Instituto Geográfico Agustín Codazzi 2011, 2022), Current Mining Concessions (Agencia Nacional de Minería 2022).
ments range from COP1,000 to 2,000 (US$0.27-0.54 cents) per ton.

The fast development of coal mining affects the environment. Dynamite is used to blast tunnels that are sometimes more than 500 meters long. The explosions fracture the ground and water escapes to deeper levels; water sources dry up, making agriculture difficult. The communities complain of declining water quality near the mines. Finally, coal mining causes deforestation due to the demand for wooden beams to build tunnels.

6.5 PATTEGRILLO

Historically, guerrilla organizations have attacked oil infrastructure as part of their rhetoric of defense and nationalism of natural resources and as a way to extort from the companies that operate in their areas of influence (Aponte and González, 2021). The Caño Limón-Coveñas (map 6) oil pipeline, which crosses Catatumbo, was attacked on eight different occasions in 2021.

However, most of the oil spills are caused by pategrillo, the name given to a rudimentary fuel obtained after processing. In the first semester of 2021, 2,430 barrels of crude oil were stolen daily in Colombia, an increase of about 21% compared to the 2,008 barrels stolen daily in 2020. The people who extract the crude, known as pategrilleros, put valves in the pipeline to extract the oil. Some are even installed in the middle of the jungle. Long hoses are connected along several kilometers, transporting the crude from the oil pipeline to trucks. The crude is then taken to laboratories where it is refined. The final product is the rudimentary gasoline called pategrillo.

Generally, oil theft occurs when there is no pressure in the pipeline. However, when the oil is being pumped, the illegally installed valves become easily dislodged. According to testimonies from the communities, oil companies sometimes pump oil despite knowing there is a leak. Spills damage the soil and water sources. Rivers carry this pollution across the border and the oil ends up in Lake Maracaibo, in Venezuela. Venezuelan authorities often send bills to the Colombian companies responsible for the oil infrastructure.

Most pategrillo is used as a chemical precursor in the laboratories that produce cocaine base paste. Demand increased when fuel became scarce in Venezuela in 2018 (before that crisis, fuel, which was heavily subsidized, was smuggled across the border). Drug traffickers can save a lot more by using pategrillo: 60 gallons of gasoline cost over COP500,000 (US$135), whereas the same amount of pategrillo is sold for about COP240,000 (US$64.8). In addition, pategrillo is mixed with diesel and sold as fuel in inland departments, on the Caribbean coast and in Venezuela.

For security reasons, the cleaning staff responsible for shutting the illicit valves is often accompanied by the army. In one of the few police actions against oil theft, in December of 2021, an operation involving more than 1,000 people was shut down. They stole 59,000 barrels of crude monthly through one valve, more than 780,000 a year, worth over US$60 million.

53 Interview with an academic, November 26, 2021.
54 Focus group with community leaders from Catatumbo, November 29, 2021.
57 Oliver Griffin, “Colombia oil theft surges as smuggled gasoline dries up”, Reuters, November 8, 2021.
58 Interview with a community leader, November 30, 2021.
59 Interview with an environmental activist, November 30, 2021.
60 Interview with an environmental engineer from the Fundación Humedales Catatumbo, November 2021.
61 Focus group with community leaders from Catatumbo, November 29, 2021; interview with a community leader, November 29, 2021.
62 Prices prior to the Ukraine war.
63 Interview with a public official of the judiciary, December 2, 2021.
Map 6
Oil facilities and environmental licenses for hydrocarbons in Catatumbo

Source: prepared by Nicolás Vargas-Ramírez based on political-administrative division and terrain (Instituto Geográfico Agustín Codazzi 2011, 2022), concessions and wells map (Agencia Nacional de Hidrocarburos 2022, 2021), oil pipelines and hydrocarbon licensed areas (Autoridad Nacional de Licencias Ambientales 2022, 2013).
The aqueducts, on which Cúcuta (the capital of the department) and entire towns depend, frequently have to be shut down because of contamination. Floating barriers designed to prevent crude oil from flowing into rivers overflow easily and the environmental harm caused by the spills has irreparable consequences that last more than twenty years. The local population complain that fish and subterranean water for daily consumption are contaminated, and there is frequent tension between communities and pategrilleros. Most pategrilleros are from outside the communities and sometimes they are Venezuelan immigrants. One community leader refers to the pategrilleros as an armed “cartel” that pays a commission to guerrilla groups to be allowed to operate. Another leader said that between 20 and 30 trucks transporting pategrillo pass through his village every night. The constant traffic damages the roads and causes accidents. “Pategrillo can't be carried in pants pockets; it has to be transported by trucks”, he said, adding that neither the police nor the army interfere. The ELN and other dissident groups tax this activity. The guerrilla groups charge extortion fees amounting up to COP10,000 (US$2.7) per barrel. When the communities speak out against the pategrilleros, they receive threats. And in cases where the ELN was asked to intervene, this organization sided with the latter.

65 Interview with a public official, November 26, 2021.
66 Interview with a Catatumbo community leader, December 1, 2021.
67 Focus group with Catatumbo community leaders, November 29, 2021.
68 Allegedly, an incident occurred in which police officers captured some pategrilleros, but others threatened to blow up the gas tank, forcing the police to free the detainees. Interview with a Catatumbo community leader, December 1, 2021.
69 Interview with a Catatumbo community leader, December 1, 2021.
70 Focus group with Catatumbo community leaders, November 29, 2021.
71 Interview with a Catatumbo community leader, December 1, 2021.
PROPERTY, PROPERTY RIGHTS, THE EXTRACTIVE MODEL AND CONFLICTS

Land dispossession and changes in ownership and land use have caused social and environmental conflicts, which are linked to the economic models promoted by national and local governments. These projects are being promoted in areas of special ecological importance that are considered sacred by the indigenous resguardos or protected areas. This is a violation of Indigenous Peoples’ right to prior consultation. The extractive mining model opposes the territorial, resource and environmental management proposals put forward mainly by peasant and indigenous communities, such as the Zonas de Reserva Campesina (Peasant Enterprise Zones, ZRC for its acronym in Spanish) and the expansion of indigenous resguardos.

An example of this is Ecopetrol’s oil exploitation in an ancestral territory of the Barí community, without due prior consultation process (UNDP, 2014). In 2002, the Ministerio de Ambiente, Vivienda y Desarrollo (Ministry of Environment, Housing and Territorial Development) issued an environmental license that would allow Ecopetrol to begin exploration and exploitation of the Los Álamos well, located in part of the indigenous territory. The Barí filed several appeals to the courts, rejecting the exploitation and arguing that their right to prior consultation had been violated. The Constitutional Court issued sentence T-880 in favor of the indigenous community and ordered Ecopetrol to suspend exploitation and carry out the appropriate consultations. Nevertheless, the conflict still exists (Fundación Ideas para la Paz, 2021).

In Tibú and Sardinata, the government has opted for a model that focuses on exploiting hydrocarbon and coal, in alliance with public and private entities. These economies, based on fossil fuels, are largely responsible for climate change (Boyce, 2018; OurWorld in Data 2020). The land that goes to this kind of exploitation is not used to produce food and oil spills damage water sources.

“Over the last 20 years, urban and rural areas in Catatumbo have suffered the deterioration and destruction of multiple water ecosystems, due to a lack of planning, management and knowledge regarding the important ecosystem services that water ecosystems offer the environment and society at large”.

The insecurity of rural property rights has other consequences. The Barí community request to expand the resguardo clashed with the de facto Zona de Reserva Campesina (Peasant Enterprise Zone), constituted by peasant communities, because part of the land the two requests refer to overlaps (see map 2, above) (Aponte, Arboleda and Barrera, 2016). In 2017, the Constitutional Court ordered the Agencia Nacional de Tierra (National Land Agency) to resolve the requests made by

72 Online interview with an environmental activism leader, November 29, 2021; online interview with a peasant leader, December 9, 2021.

73 Prior consultation is a fundamental right that ethnic populations (Indigenous Peoples and Afro-descendants) are entitled to in Colombia when measures (legislative or administrative) are taken or when projects, works or activities are to be developed in their territories. Its objective is to protect their cultural, social and economic integrity and guarantee their right to participation. Prior consultation was developed in Colombia in the context of the United Nations recognition, made explicit by means of Convention 169 of the International Labour Organization (ILO) of 1989, which was incorporated into national legislation by Law 21 of 1991.

74 Telephone interview with an environmental engineer from the Fundación Humedales Catatumbo, February 7, 2022.

75 See Appendix 1.
the Barí people. Although round tables were set up to discuss the issue, the state has made no progress in resolving the conflict.

Meanwhile, peasant communities searching for land have settled in protected areas (several do not have clear delimitations on the ground). For example, peasant families living within the Parque Nacional Natural Catatumbo Barí (Catatumbo Barí National Natural Park) demand that the environmental authorities allow them to remain in the territories they live and work in. The peasants want ownership titles for the land they farm. For their part, the environmental authorities argue that this is protected land of special ecological importance and not subject to allocation. In view of this, what they suggest is to allow the peasants to exploit the land and remain in this territory, respecting conservation and care measures, but without the right to titling. The parties have not come to an agreement to accept the only solution proposed by Parques Nacionales Naturales (the National Natural Parks institution), which is to sign conservation agreements with the peasants.

Lastly, the waves of forced displacement and land dispossession have led many displaced peasant families who are in the midst of settlement processes to become involved in coca cultivation for illicit use. The accumulation of vulnerabilities (Ciro, 2020) and the lack of conditions that would allow them to access other economies place them at permanent risk of suffering violence perpetrated by state and non-state armed actors.
When the FARC demobilized in 2016, a re-configuration of the conflict ensued. Many non-state armed groups remain active in the region (map 7), imposing orders and regulations on the lives of the local population in order to obtain resources and labor for their activities. These regulations include practices which directly or indirectly harm ecosystems.

8.1 FARC DEMOBILIZATION AND DEFORESTATION

Deforestation in Catatumbo has increased exponentially since 2016 due to several factors. Early data seem to indicate that after the FARC—which was the dominant actor—demobilized, environmental degradation has been on the rise. The FARC used to impose conservation-oriented rules that no longer exist (control and regulation of logging, poaching and contamination of water sources, among others). The remaining operational armed actors compete for resources, territories, and control of populations through actions that are generally harmful to the environment. In the absence of rules, new settlement processes are beginning in the Parque Nacional Natural Motilón Barí (Motilón Barí National Natural Park) and close to the border zone with Venezuela.

The FARC used to limit certain activities that affected the natural environment. According to a former FARC commander in Norte de Santander, “defending the common goods of nature was part of our doctrine.” The guerrilla group restricted logging because “permission had to be asked to fell a mountain”; they restricted the size of coca plantation a family could own (three hectares maximum) and banned drug laboratories close to water sources. In addition, they organized reforestation campaigns to re-populate forests with native trees and to clean water basins.

In order to guarantee food security, coca crops were required to be grown alongside roots, fruit and vegetables. Likewise, areas and periods when logging was permitted were designated, all activities were banned in areas close to water sources and drainage basins and poaching was regulated. The containment of environmental harm was due to both ideological and strategic reasons: the guerrilla groups needed forest cover to move around safely and set up camps undetected.

77 Interview 1 with a member of a social organization in Catatumbo, November 2021; interview 4 with a female Catatumbo leader, November 16, 2021.
78 Interview with a former FARC commander, December 1, 2021.
79 Interview with a former FARC commander, December 1, 2021.
80 According to the version of an interviewee, today one individual can own up to 50 or 60 hectares of coca. Interview 4 with female Catatumbo leader, November 16, 2021.
81 “It used to always be 300 meters away from water sources, and now people don’t respect that. Burning was done at certain times, January and February were the designated periods, now they burn down the entire forest, this used to be regulated” (interview 1).
82 Interview 4 with female Catatumbo leader, November 16, 2021.
Map 7
Illegal armed groups and incursions in Catatumbo by 2022

Source: prepared by Nicolás Vargas-Ramírez based on political-administrative division and terrain (Instituto Geográfico Agustín Codazzi 2011, 2022), armed groups and incursions based on Andrés Felipe Aponte González information.
The demobilization of the FARC made local farmers confident they could cut down the forests and facilitated the arrival of new waves of settlers: “They began to log the forests in the territories like crazy”, denounced the former FARC commander. “A vacuum was left in the territory and people took advantage of that”.

Community leaders from different parts of Catatumbo pointed out that, as well as the arrival of Venezuelan migrants and people from Putumayo and Caquetá, other individuals, whom they described as “thugs”, have also appeared in the area. These are narcos, people who have money to invest in deforestation, crops, and land grabbing.

The large number of new settlers has even contributed to the emergence of new populated centers, such as the one at kilometer 25 (on the road between Tibú and La Gabarra), which have transformed the landscape and impacted the environment.

Another reason that deforestation has been on the rise since 2016 is the interest many peasants showed in reaping the benefits of the projects that are part of the Programa Nacional Integral de Sustitución de Cultivos Ilícitos (National Comprehensive Programme for the Substitution of Crops used for Illicit Purposes, PNIS for its acronym in Spanish). In order to do so, it is a requirement to prove coca crop ownership.

Photographs 2 and 3 illustrate deforestation in rural areas of Tibú, Sardinata, Teorama and El Tarra, associated with coca crops.

Photograph 2
Recently deforested area used for coca cultivation

Photograph: Andrés F. Aponte.

---

84 Interview with a former FARC commander, December 1, 2021.
85 Interview 5 with the director of a foundation for the defense of human rights, November 17, 2021.
86 Focus group with Catatumbo community leaders, November 20, 2021.
88 Crops are being developed only in flat areas and in others that are more difficult to access, such as the foothills and peaks of mountains (interview 6). This shows that land is becoming increasingly scarce, due to the arrival of new settlers to flat areas and areas close to main roads.
8.2 DYNAMICS AND LOGIC OF THE CONFLICT AFTER THE AGREEMENT (2016-2021)

Five non-state armed groups currently operate in Catatumbo: the Ejército de Liberación (Nacional National Liberation Army, ELN for its acronym in Spanish) which is the most numerous and is present in the municipalities of El Tarra, Convención, Hacarí, San Calixto and Sardinata; the Ejército Popular de Liberación (Popular Liberation Army, EPL for its acronym in Spanish) which operates in the most remote areas of upper Catatumbo; the 33rd front (FARC dissidence) (Defensoría del Pueblo, SAT, Q25, 2021), present in areas of Tibú and El Tarra and leading incursions into San Calixto, Convención and Sardinata; the Autodefensas Gaitanistas de Colombia (Gaitanist Self-Defense Forces of Colombia, AGC for its acronym in Spanish), present in Sardinata; and the Second Marquetalia, present in areas of upper Catatumbo and Ocaña.

Armed groups have strengthened recruitment with Venezuelan migrants and former FARC militia members who did not demobilize and have experience in exercising violence and control.

The variety of actors and their interest in expanding territorial control mean domains and armed jurisdictions...
are unstable and generate uncertainty among the local population, who find it difficult to identify each group’s political identity\(^9\). Community members report that it is becoming increasingly difficult to establish a dialogue with the armed actors present in their territories\(^9\).

In areas formerly controlled by the FARC, the Juntas de Acción Comunal (Community Action Boards, JAC for its acronym in Spanish) tried to maintain the environmental restrictions in place through “manuals for coexistence”. The armed groups that took control after the demobilization informed the JAC that they would respect their rules and regulations. “The guerrilla movement respects what the community says”, a local leader explained\(^9\).

However, there are differences: in the case of small-scale farmers, the environmental restrictions are respected; but larger operations have the power to influence how the guerrilla groups behave when seeking economic benefit. Several sources, including community leaders and experts in security and the armed groups active in Catatumbo, state that commanders can be bribed to allow deforestation. Sometimes, the powerful actors who carry out deforestation seek out the guerrilla groups to pressurize local communities\(^9\).

Violence, including threats, displacement and assassinations, has increased against women, social and environmental leaders and former combatants. Local communities have been subjected to armed strikes and confinements that worsened during the pandemic\(^10\).

Tensions regarding environmental conservation have increased the vulnerability of certain populations\(^11\). Some armed actors see local communities as an obstacle to their plans for expansion, territorial control and resource extraction, particularly when it comes to coca crops and pategrillo located within environmental and ethnic jurisdictions and their adjacent areas. Environmental organizations have reported that the Parque Nacional Natural Catatumbo Barí (Catatumbo Bari National Natural Park) and the Bari indigenous resguardo are suffering the consequences of deforestation and the pollution of drainage basins, the presence of chemical substances and crude oil spills\(^12\), which are exacerbated by ELN attacks on oil infrastructure, as shown in photograph 4\(^13\).

The 33rd front dissidence is the group that has most benefited from the dynamics described above. While the EPL and the ELN were engaged in a violent confrontation (2017-2020), the dissidence group harvested the discontent generated by the armed dispute, the failures in the implementation of the Peace Agreement and the insecurity of former combatants\(^14\). This allowed former FARC contacts to re-arm\(^15\) and helped the dissidence group to gain ground in Tibú, El Tarra and San Calixto between

\(^9\) Interview 5 with the director of a foundation for the defense of human rights, November 17, 2021.

\(^9\) Interview 3 with officials of The Mission to Support the Peace Process in Colombia (MAPP-OEA), Ocaña branch, November 18, 2021.

\(^9\) Focus group with Catatumbo community leaders, November 29, 2021.

\(^10\) Interview with sources that have knowledge of the territory, December 1, 2021; international cooperation representative, November 26, 2021.

\(^10\) Online interview with a human rights defender, November 29, 2021; and with a researcher, December 12, 2021.
2019 and 2020\textsuperscript{107}. At the same time, the group uses their many resources to drive political work and provide social services, such as building new football fields, paving sections of the Cúcuta-Tibú highway and opening new dirt tracks that facilitate illegal economic exchanges with Venezuela\textsuperscript{108}. As a result, the local population associates the 33rd front dissidence with the FARC, which explains why the ELN have been less successful in their expansion in these areas: “People believe they are the old FARC”\textsuperscript{109}.

8.3 GOVERNANCE IN CATATUMBO: DISRUPTION AND CONTINUITY

In Catatumbo, there is an alternation of continuity and disruption when it comes to the forms of governance used by the various armed actors. The level of influence (direct or indirect) said governance has on the consequences of settlement processes, deforestation, coca cultivation and other environmental issues also varies.

Armed actors seek to become a reference of order for inhabitants through governance models based on the imposition of rules and the provision of services, which they leverage with the exercise of violence. However, these governance models vary depending on the actor that imposes them and the living environments they encompass\textsuperscript{110}. But these groups’ instability in terms of ter-

\textsuperscript{107} “Norte de Santander: alerta por tensiones guerrilleras en El Tarra y San Calixto”, \textit{El Espectador}, October 25, 2021; Defensoría del Pueblo, SAT, 025, 2021.

\textsuperscript{108} Interview 3 with officials of The Mission to Support the Peace Process in Colombia (MAPP-DEA), Ocaña branch, November 18, 2021; interview 5 with the director of a foundation for the defense of human rights, November 17, 2021; interview 6 with a journalist from a regional press outlet, November 17, 2021.

\textsuperscript{109} Interview 1 with a member of a social organization in Catatumbo, November 16, 2021.

\textsuperscript{110} Governance models were developed by guerrilla groups, paramilitary groups, rearmed self-defense groups and the FARC dissidence groups. They varied over time and depending on the nature of the armed conflict: sometimes they encompassed multiple spheres of social life (resolution of marital problems, criminality control, drug consumption), the economic aspect (coca, coal extraction, contraband, formal and informal commerce) and the political dimension (influence
territorial control affects their ability to govern and makes them compete with each other, generally by resorting to higher levels of control and violence. When the FARC demobilized in 2016, it became unclear what rules and mechanisms to solve problems—including environmental problems, which armed actors show less interest in regulating—were in place. This does not mean there is no regulation. The actors impose rules and use exemplary punishments that can include banishment or the death penalty. They also control and organize activities such as deforestation, the expansion of coca crops or pategrillo production.

As it has been mentioned previously, the 33rd front dissidence group has benefitted from the sense of nostalgia for the FARC. Nevertheless, tensions have arisen between the dissidence groups and the communities and social organizations that support the implementation of the Peace Agreement. According to the inhabitants, communication channels are more limited now and the relationship is less “horizontal” than it was with the FARC:

“Before, people felt listened to by these groups outside of the law, they felt understood and respected, because the FARC respected the community boards (...). They could solve a case that the Board could not handle or which the authorities would not resolve. That doesn’t exist at the moment and the board is stripped of its right to solve its internal affairs”.

The overlap that exists between the groups’ areas of influence creates problems for the local inhabitants, who do not know who they should approach to solve problems associated with the environment, because although all the armed actors claim to protect the ecosystems, “(...) Nobody has the authority to say (something) should not be done. Because there are so many actors that it is hard to know who is who.”

In Catatumbo, an armed group can impose environmental protection measures in one area, but not in another. For example, in the areas where its dominance is solid, the ELN have established rules for the conservation of the environment; but in the areas where they are competing with other groups, they promote settlement and deforestation processes associated with coca to gain the sympathy of the settlers. Currently, there is a fight over resources and social bases between the ELN and the dissidence groups in Tibú, Sardinata, El Tarra and San Calixto.

---

111 For example, as a punishment for providing information to public security forces, selling coca leaf or coca paste outside the intermediary channels designated by the armed groups, consuming drugs or stealing. In cases of fights or propagation of false rumors, they can demand forced labor (coca planting) or community service (road repair, cleaning of public spaces). Interview 3.

112 Interview 3 with officials of The Mission to Support the Peace Process in Colombia (MAPP-OEA), Ocaña branch, November 18, 2021.

113 Interview 1 with a member of a social organization in Catatumbo, November 16, 2021; interview 3 with officials of The Mission to Support the Peace Process in Colombia (MAPP-OEA), Ocaña branch, November 18, 2021.

114 The Juntas de Acción Comunal (Community Action Boards), referred to as la Junta are a civil, social and community solidarity-based management organization, the aim of which is to promote comprehensive, sustainable and long-term development to improve participatory democracy in Colombia (law 743 of 2002).

115 Interview 4 with a female Catatumbo leader, November 16, 2021.

116 Interview 2 with public officials and state technicians working on environmental issues, November 18, 2021.

117 Interview 3 with officials of The Mission to Support the Peace Process in Colombia (MAPP-OEA), Ocaña branch, November 18, 2021.
INSTITUTIONAL RESPONSES

9.1. NON-COMPLIANCE WITH KEY MEASURES OF THE PEACE AGREEMENT

The Colombian Peace Agreement is one of the most comprehensive in the world in terms of addressing economic and social inequalities (Guzmán, 2020). One of its objectives is to reduce the gaps that exist between the countryside and the city, fight against drug trafficking and include the differential gender and ethnic perspectives. The agreement has six sections: 1) strengthen land distribution and formalization processes for the poorest sectors of society through a comprehensive rural reform; 2) reform, strengthen and ensure due guarantees for political participation processes; 3) put an end to the conflict and build a comprehensive reintegration process at both the collective and individual level; 4) ensure alternative measures for excluded peasant populations who participated in coca crop economies and resolve the drug problem; 5) develop and strengthen processes of reparation for victims and ensure transitional justice mechanisms; and 6) ensure the use of mechanisms to verify, endorse and implement the Agreement. The parties agreed these points should be articulated and comprehensive in nature in order to build a stable and long-lasting peace (García, 2020; Acero and Machuca, 2021; IFIT, 2020).

In the Peace Agreement implementation process, Catatumbo is one of the 16 prioritized regions where the Programas de Desarrollo con Enfoque Territorial (Development Programs with a Territorial-Based Focus, PDET) for its acronym in Spanish), are being put into practice. These regions were selected for their poverty levels, the impact of the armed conflict (measured in the number of victims, among other factors), the weakness of the administrative institutions and the presence of crops used for illegal purposes (Gobierno Nacional de Colombia and Fuerzas Armadas Revolucionarias de Colombia – FARC-EP, 2016: 10-33).

The PDETs must constitute an instrument to plan, in a participatory manner, initiatives aimed at rural development, materialize peace with a territorial approach and close the gaps between the countryside and the city. Although Catatumbo has been one of the pilot regions, five years after the signing of Agreement, implementation has been limited and the conditions that generated and prolonged the armed conflict have not been successfully changed (La Silla Vacía, 2021).

The implementation of the Agreement is slow and fragmented. Sections 1 and 4, which address agrarian affairs and should be coordinated, have taken separate paths and present serious limitations.

Section 1 on comprehensive rural reform addresses the multipurpose cadastre which, in Catatumbo, has only advanced in the municipality of Sardinata. The Fondo de Tierras (Land Fund), which registers the rural properties that will be allocated to peasants, has made no progress either. In Catatumbo, only seven properties have been entered into the Fondo and they are not available for adjudication (Fundación Ideas para la Paz, 2021: 65). The same problem arises in the rest of the country: 90% of the land registered in the Fondo presents problems with ownership rights and is not ready to be allocated (Procuraduría General de la Nación, 2020).

118 “Acuerdo Final para la Terminación del Conflicto y la Construcción de una Paz Estable y Duradera” (Final Agreement to End the Armed Conflict and Build a Stable and Lasting Peace), 2016.
Formalization of property has been minimal: according to the Fundación Ideas para la Paz, only 55 plots of land have been formalized, equivalent to 237 ha, in the municipalities of El Carmen (1), Hacarí (2), Ocaña (50) and Tibú (Fundación Ideas para la Paz, 2021: 65).

The slow implementation of the agrarian section means insecurity and informality continue to hinder property rights, with several consequences: first, legal uncertainty persists about who owns what land and what kind of exploitation and use can be made of it. This prevents peasant families from accessing other services and rights such as credit, assistance, projects, etc. Second, passivity persists in the face of land dispossession and its control by economic or armed actors. Third, deforestation is encouraged in order to gain access to land and use it for crops or livestock. In addition, not having the property title makes it difficult for the state to take environmental conservation measures that include the peasant communities.

Section 4 created the above mentioned Programa Nacional Integral de Sustitución de Cultivos de Uso Ilícito (National Comprehensive Programme for the Substitution of Crops Used for Illicit Purposes, PNIS for its acronym in Spanish). This program included a monetary incentive for the farmers who eradicate their coca crops, and a financial and technical incentive to begin new projects that would allow them to build alternative livelihoods119.

Only two of the municipalities in the region that have crops were included in the program: Tibú and Sardinaña120. In addition, the government of former president Iván Duque (2018-2022) did not allow new families to join the program and decided not to allocate any more funds to it121. Likewise, payments to the peasant families who eradicated their coca crops have not been made in full and their productive projects have been delayed. According to a census from 2020, that year almost 3,000 families participated in the PNIS in Norte de Santander122, but many of them abandoned the program due to pressure from armed groups or problems with its implementation. The government did not comply with the promised payments and the alternative projects failed to become dignified livelihood options123.

The PNIS did not resolve the lack of connections with regional markets nor the bad conditions of the roads. As a result, the costs of transport to reach local markets prevented the alternative projects from being profitable. In addition, substitution was not carried out gradually. Once the peasants eradicated their crops, they were left without a livelihood to support their families. This situation worsened with the COVID-19 pandemic. Many peasants faced threats and intimidation by armed actors, who forced them to resume coca growing; many of those who had eradicated their crops returned to growing coca124. There were also problems within organizational processes, with the bases blaming their representatives and leaders125.

On the other hand, in contradiction of the Agreement, which prioritizes voluntary substitution, the “peace with legality” policy promoted by Duque’s government attempted to return to forced eradication and even to fumigation or aerial spraying using glyphosate126. The

---


120 Online interview with an academic researcher, December 12, 2021.

121 Online interview with a public official, November 26, 2021.


123 Palm cultivation has been promoted as an alternative to coca, but in reality, peasants keep their coca crops as a way to guarantee their income. Interview with a businessman, November 27, 2021.

124 Focus group with Catatumbo community leaders, November 29, 2021.

125 Interview with an academic leader and a peasant leader.

126 Glyphosate is a non-selective herbicide; it kills other plants and crops, contaminates water sources and affects pollination, in turn impacting ecosystems in general. In fact, it is listed on the list of herbicides and pesticides that are highly dangerous for humans, animals and ecosystems. This substance is probably carcinogenic, as indicated by the World Health Organization (associated with non-Hodgkin's lymphoma cancer, which can develop 15 years after exposure) and it has been banned in several territories, including 12 cities in Argentina and in the natural reserves of Costa Rica. Mexico banned its importation.
government’s attempts to resume aerial spraying with glyphosate were unsuccessful, as the Supreme Court of Justice ratified the ban that was approved by Juan Manuel Santos’ administration (2010-2018)\textsuperscript{127}. Nevertheless, this gave rise to tensions in rural areas of the country\textsuperscript{128} that even led to the death of peasants\textsuperscript{129}.

As part of the war on drugs, attempts have been made to resume strategies and failed actions from the past (Machuca and Acero, 2021) which criminalize peasants and local inhabitants and propitiate power abuse and human rights violations against peasants and coca growers. Those strategies stigmatize peasants and, in some cases, even lead them to be prosecuted as drug traffickers and collaborators of the armed groups (UNDP, 2014; Human Rights Watch, 2019)\textsuperscript{130}. Forced eradication and aerial spraying contradict section 4 of the Agreement and cause serious environmental damage\textsuperscript{131}. In response, there have been protests and marches and even the retention of 180 military personnel\textsuperscript{132}.

In this context, since 2016, violence against social leaders has worsened. According to the JEP, between 2016 and 2021, 904 leaders were killed, particularly those who participated in the implementation of the PDETs and PNIS (JEP, 2021). For the second year in a row, Colombia was the most lethal country for environmental leaders, both male and female (Global Witness, 2021).

In Catatumbo, insecurity has risen for indigenous people, peasants, women, human rights defenders and even officials who defend territorial and environmental rights. The measures implemented by the Unidad de Protección (Protection Unit) have been insufficient. They do not adequately account for the ethnic and peasant perspectives that exist in Catatumbo, nor do they address the geographic context of the area.

### 9.2 INSTITUTIONAL PRECARIOUSNESS

In Catatumbo, institutional weakness is endemic and exacerbated by corruption, which makes it difficult to ensure the inhabitants’ property rights and to protect ecosystems. The main environmental and agrarian conflicts are associated with the legal confusion around property rights, opposing claims by different groups and the use of violence.

Most state conservation policies do not include peasant communities in their proposals. On the one hand, there are delimitation problems regarding protected areas\textsuperscript{133} and areas of special ecological importance. On the other hand, alternatives have not been implemented to guarantee the rights of peasant families located in protected areas that have historically been marginalized and excluded.

Police and environmental authorities have not been able to curb the aggravation of the conflict after the Peace Agreement. Their inability to replace the order left by the FARC is evident. The movement of environmental authorities is restricted by the armed actors, to the point that they avoid going to areas where the community leaders cannot negotiate their access, that is, ask permission for


\textsuperscript{129} “Dos muertos en intentos de erradicación de coca”, \textit{La Opinión}, May 18, 2020.

\textsuperscript{130} “Camino complicado de Fudra en el Catatumbo”, \textit{La Opinión}, May 5, 2019.

\textsuperscript{131} Interview with a human rights defender, a peasant leader and an academic leader.

\textsuperscript{132} \textit{El Tiempo}, October 28, 2021.

\textsuperscript{133} In Catatumbo, there are several institutional, social, ethnic and environmental figures and jurisdictions that overlap with each other. So far, this overlap has made harmonization or the development of formalization actions impossible. Such is the case of the Parques Nacionales Naturales (National Natural Parks), the Areas de Reserva Forestal (Forest Reserve Zones) and their conflict with the indigenous resguardos and the intentions to constitute a Zona de Reserva Campesina (Peasant Enterprise Zone).
VIOLENT CONFLICT AND ENVIRONMENTAL DEGRADATION IN CATATUMBO

their visit\textsuperscript{134}. With security conditions like that, it is impossible for customs and police authorities to investigate environmental crimes and other illegal activities\textsuperscript{135}.

This is compounded by corruption: the presence of environmental and agricultural authorities is weak and they can be easily bribed\textsuperscript{136}. Small-scale farmers complain about selective actions, claiming that timber is confiscated from them, while large-scale loggers are allowed to act freely\textsuperscript{137}.

It is also rare for the authorities to take action against illegal coal mining. One public official says this is a challenge, because the initial actions must be taken by police and mayors, but often they do not act due to the influence of armed actors in their municipalities\textsuperscript{138}. Additionally, this sector hides criminal interests. After receiving threats against community members, the leaders from the area asked an environmental activist not to protest against mining. Following the national strike in the second semester of 2021, during which several mines near Sardinata suffered losses due to the road blockades by protesters, unknown actors threatened to harm the protesters if they did not leave\textsuperscript{139}.

9.3 MILITARIZATION

All of the above does not mean that the state is completely absent. It is one of the three most militarized regions in the country. However, militarization has failed to put a stop to the violence. According to community sources, the presence of the armed forces and their sporadic operations have increased insecurity and caused blame and stigmatization from both sides.

The Tercera Brigada del Ejército (Third Army Brigade) and the Batallón de Ingenieros Nº30 (30th Engineer Battalion), the Fuerza de Tarea Vulcano (Vulcano Task Force) and the Fuerza de Despliegue Rápido (Rapid Deployment Force, Fudra for its acronym in Spanish) all operate in Catatumbo. Following the attack against former president Duque committed by the FARC dissidence in Cúcuta in June of 2021, the government announced the creation of the Comando Específico de Norte de Santander (Specific Command of Norte de Santander), made up of 14,000 army troops.

The use of the armed forces as the main response is also rooted in the environmental conservation narrative of Operation Artemisa and the Zonas Futuro (Future Zones), understood as a comprehensive stabilization security strategy to promote development, based on forced eradication and an element of counterinsurgency\textsuperscript{140}.

The Artemisa operations and the Zonas Futuro are part of the former government’s Política de Defensa y Seguridad para la Legalidad, el Emprendimiento y la Equidad (Policy for Defense and Security for Legality, Entrepreneurship and Equality), which, for the first time in the country’s history, established that water, the environment and biodiversity were priority issues and axes of national security. This position was sustained on the understanding that Colombia has great diversity and wealth: it is the second most biodiverse country in the world and the third with most water. Therefore, those resources were not only addressed as “strategic assets of

\textsuperscript{134} Proof of this is the theft, in 2021, of three vehicles belonging to the Corporación Autónoma Regional de la Frontera Nororiental (Regional Autonomous Corporation of the North-eastern Border, Corponor for its acronym in Spanish), the departmental environmental authority of the state. Interview with a public official, November 26, 2021.

\textsuperscript{135} Interview with a public official of the judiciary in Cúcuta, November and December of 2021.

\textsuperscript{136} Interview with an academic, November 26, 2021; focus group with Catatumbo community leaders, November 29 and 30, 2021.

\textsuperscript{137} Focus group with Catatumbo community leaders, November 30, 2021.

\textsuperscript{138} Interview with a public official, November 26, 2021.

\textsuperscript{139} Focus group with Catatumbo community leaders, November 29, 2021.

\textsuperscript{140} “Gobierno Nacional aprobó plan de ejecución de Zonas Futuro por $194.500 millones”, La República, July 22, 2021.
the nation”; they were also qualified as having “primary and prevailing national interest” in a global context of climate change, scarcity of resources and potential conflicts.\textsuperscript{141}

The diagnosis carried out at the time identified armed actors and the coca economy as the main threats, which is what led to the conception of a Fuerza de Protección Integral Ambiental (Comprehensive Environmental Protection Force), made up of the Armed Forces and the National Police, to work in a coordinated manner with intelligence bodies, the Office of the Attorney General and the environmental authorities.\textsuperscript{142}

Two years after being put into practice, Operation Artemisa raised more doubts and questions than results. In several regions, such as Caquetá and Meta, there have been reports of abuses of authority, irregular figures, stigmatization and accusations against local inhabitants.\textsuperscript{143}

Its ability to halt deforestation has been questioned, despite the results shown in conservation, preservation and protection of environmentally important areas.\textsuperscript{144}


FUTURE SCENARIOS

10.1 PEACEBUILDING

As long as non-state armed groups continue to rely on natural resources, ecosystems will be destroyed and competition for increasingly scarce resources will grow, which is likely to lead to more conflict and violence.

After the signing of the Peace Agreement in 2016, the government should have addressed peacebuilding and environmental protection in a comprehensive manner. Colombian governments claim to be committed to the United Nations 2030 Agenda for Sustainable Development and to be world leaders on this issue. What is more, large segments of society and the affected areas are demanding this to be complied with. The new government that emerged from the 2022 elections should act accordingly, addressing these two issues together.

The Agreement opened a window of opportunity for the consolidation of environmental peace, but it was soon closed due to insufficient efforts to improve state presence; meanwhile, natural resources continue to be used to finance violence. This has been perpetuated by Congress’ failure to ratify the Escazú Agreement145.

Some of Colombia’s biggest challenges to implement the Peace Agreement and restore order in the regions most affected by the conflict are a lack of political will, the absence of state capacity, insufficient resources and complex security dynamics. The environment is a crucial factor that can make or break peace in Colombia. As long as environmental protection is not guaranteed in the conflict zones, armed groups will continue financing themselves by exploiting natural resources, key ecosystems will be destroyed, and already marginalized populations will be further harmed. All of this calls into question the current narrative that all problems and conflicts in these localities are caused by drug trafficking.

10.2 DEVELOPMENT

The pillage and plunder of resources damages the resilience of the communities most affected by the conflict and prevents them from accessing opportunities to escape those dynamics. Sustainable livelihoods are essential to promote peace. The voice of local communities must be taken into account when designing rural development plans.

In the context of the Agreement, rural communities proposed and signed development projects, but the government has not fulfilled its part. In general, state projects have been designed from the top down, in line with business interests, without taking into account what is possible and desired in the regions. Development projects cannot work if the local community does not play a central role, but often the locals have little choice and the state-run Banco Agrario (Agrarian Bank), government agencies and international institutions encourage projects such as oil palm investments146.

145 The Escazú Agreement, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, was signed on March 4, 2018 in Costa Rica and entered into force on April 22, 2020. Signed by 24 countries, 12 have not ratified it, including Colombia, where economic guilds oppose its approval, with the support of the political parties of the government coalition and Iván Duque’s administration (2018-2022).

146 Peasants need to make a quick profit, which is why they prefer palm projects. For example, a loan of COP18 million for...
Focusing on the most abandoned and conflict-affected regions and working on rural development, healthcare, education and local economies with access to markets would distance these populations from illicit economies while reducing the income of armed actors and curbing environmental destruction. It would also limit recruitment, as people would have viable alternatives to support themselves and their families.

10.3 CLIMATE CHANGE

The environmental costs of the conflict have made Colombian ecosystems less resilient to climate pressures, such as El Niño phenomenon, river sedimentation and extreme droughts. Climate change will aggravate the vulnerability of already marginalized populations.

Deforested areas in Catatumbo will be more prone to landslides, and the thin layer of fertile soil will be easily eroded by extreme rainfall. In lower Catatumbo, rivers are already eating into deforested riverbanks and land for crops and livestock has been lost along Río de Oro, for example. Tropical rainforests will become dry forests and these will suffer desertification. It is predicted that this process will take place over three decades. Hydrological cycles will change and rainy seasons will shorten.

Much of the water located in Norte de Santander and the Catatumbo river basin comes from the Santurbán páramo, a high-altitude wetland which currently faces several threats, including climate change and mining operations.

Climate change hinders agriculture, pushing farmers into cattle farming and mining. “Mining will benefit enormously”, says an academic in Norte de Santander, because it is one of the few economies that does not rely heavily on water or fertile soil. The interests of sectors like coal mining and oil palm are a matter of concern for local community leaders because of their environmental footprint and their capacity to absorb local populations into their commercial ventures.

Subsistence agriculture will face threats, as each cow will require larger pastures and agricultural projects will need better irrigation systems. More people will migrate to urban centers, where they have to compete in a labor market that already copes with the competition of tens of thousands of Venezuelan migrants.

---

147 Interview with an academic, November 26, 2021.
148 Interview with an academic, November 26, 2021.
149 Focus group with Catatumbo community leaders, November 29 and 30, 2021.
150 Interview with a public official, December 3, 2021.
### RECOMMENDATIONS

#### 11.1 COMPREHENSIVE RURAL REFORM AND SOCIAL AND ENVIRONMENTAL MANAGEMENT

Three structural factors would allow the resolution of several issues linked to the armed conflict and environmental degradation.

1. Carrying out social and environmental land-use planning in accordance with environmental protection standards.
2. Making use of the land according to the needs and proposals of its indigenous and peasant populations.
3. Carrying out land formalization with guarantees of property rights and social use of said land.

Recommendations:

#### 11.1.1 To the national government

- The new Pacto Histórico (Historical Pact) government that emerged from the 2022 presidential elections came to power with a program to reform the economic model, with an emphasis on reducing extractivism and promoting a green and sustainable production model. Gustavo Petro has also expressed his willingness to fulfill the 2016 Peace Agreement, to negotiate with the ELN, and he has tasked the armed forces with combating organized crime. Despite the difficulties in implementing these plans, and in doing so in a four-year term, they are promising. It is important that Catatumbo be part of the new government’s geographic and political priorities.

- Guarantee budget and institutional conditions for the Ministerio de Agricultura (Ministry of Agriculture), la Agencia de Renovación del Territorio (Territory Renewal Agency) and other public entities that work on comprehensive rural reform to implement the processes of formalization, multipurpose cadastre, redistribution and allocation of land and other measures envisaged in section 1 of the Peace Agreement.

- Fulfill the commitments made to peasant and ethnic communities as part of the Agreement. In particular, measures that allow them to influence the implementation and prioritization of projects, taking into account the list of initiatives prioritized in the participatory design of the PDETs.

- Promote and strengthen dialogue among the populations living in the Parque Nacional Natural Catatumbo Bari and the Parques Nacionales Naturales (National Natural Parks). Groups of people, often forcibly displaced by the dynamics of the conflict, have lived in those areas since before they were designated as such. Instead of criminalizing these communities, the state must take into account that many populations living in protected areas are willing to become guardians of the forests and develop subsistence economies that do not require further deforestation. National Park communities can be conservation allies if they are granted collective land titles, connection infrastructure and development investments and technical training for community forestry.

- The Agencia Nacional de Tierras (National Land Agency), Agencia de Renovación del Territorio (Territory Renewal Agency), Defensoría del Pueblo (Ombudsman’s Office) and other competent agencies must urgently demarcate the Zona de Reserva Campesina (Peasant Enterprise Zone) demanded by the
Asociación Campesina del Catatumbo (Catatumbo Peasant Association, Asamcat for its acronym in Spanish).

11.1.2 To international cooperation

Strengthen support, assistance and monitoring of the implementation of comprehensive rural reform and encourage national state agencies to take concrete steps to coordinate this point with the other points in the Agreement.

11.2 TRANSFORM THE ECONOMIES THAT CAUSE CONFLICT AND ENVIRONMENTAL HARM

Recommendations:

11.2.1. To Ecopetrol and its contractors

- Stop operations of the Caño Limón-Coveñas pipeline and begin a transition process towards alternative sources. Pumping crude oil through this pipeline is neither socially nor environmentally viable.
- Raise awareness of the implications of oil spills for public health and the environment, and about the illegal activities and tensions they generate. State or corporate actors must make serious efforts to prevent, mitigate and repair damages. Communities also need legal assistance for environmental reparation lawsuits.

11.2.2. To the government

- In order to combat coca cultivation and other economies that create a large environmental footprint, it is necessary to rethink substitution strategies and return to the participatory approach of the PNIS. Developing forced eradication actions and campaigns contradicts the Peace Agreement, and it is unrealistic to ask farmers to eliminate their coca crops when no substantial alternatives are offered and armed groups control their territories. The conjunction of these elements is counterproductive and will exacerbate social tensions and mistrust in the state.

11.3 LEGAL MEASURES AND MISINFORMATION, DOCUMENTATION AND TRACEABILITY

Law enforcement operations against environmental crimes are absent in the Catatumbo region due to security restrictions. Communities fear that, in the future, the rules will be used in repressive and discriminatory ways, as in other regions of Colombia. A new environmental crime law, issue by the Congreso de Colombia (Colombia’s Congress) in July 2021, promises to focus on financial crimes and categorizes environmental crimes. This new law is a step forward, but it is difficult to imagine real progress if corruption is not addressed.

In this regard, the recommendations are as follows:

11.3.1 To the government

- Push for structural reform of environmental state agencies to strengthen transparency, collaboration and coordination among agencies.
- Promote independent investigations and sanctions to reduce corruption in environmental oversight and protection agencies. The selection process for local managers should be de-politicized.
- Operations against environmentally harmful economies should be carried out alongside investment in local infrastructure, education, public health and rural economies.

11.3.2 To the public officials of the judiciary

Investigate the economic actors that finance environmental damage instead of focusing on subsistence farmers and coca growers.

151 There are allegations of corruption against several institutions responsible for environmental control, such as local environmental authorities (Corporaciones Autónomas Regionales –Regional Autonomous Corporation– CAR for its acronym in Spanish). More than 20 proposals to reform the CARs have not materialized.
11.3.3 To economic actors

- Conduct environmental impact studies so that local communities understand the environmental consequences of some of their economic activities. Also, in order to answer their questions and concerns about future access to water sources due to the expansion of mining projects and African oil palm plantations.

- Establish prevention, mitigation and reparation strategies. The lack of information about security dynamics in Catatumbo prevents government researchers and scientists from conducting studies in the field. Local universities and civil society can play this role, with adequate security provided by the state, in order to facilitate territorial access.

- Develop models to measure the impact of climate change in Catatumbo with detailed territorial data.

11.3.4 To the private sector, international cooperation and foreign governments

- Assist and encourage Colombia to sanitize its supply chains. The country must have access to the tools necessary to identify products from deforested areas and illegal coal mines, smuggled livestock and palm fruit. The objective should be to prevent products and raw materials associated with environmental damage from entering legal supply chains.

11.4 RECOGNITION OF COMMUNITIES’ KNOWLEDGE AND PRACTICES

Indigenous Peoples—considered the most effective forest administrators in Latin America—and indigenous reservations can protect ecosystems while defending the territorial rights of ethnic communities. Indigenous communities wish to expand their reservations, have access to sacred sites and expel the invaders.

In this regard, the recommendations are as follows:

11.4.1 To national and regional authorities, international cooperation and social and environmental organizations

- Recognize and systematize learning and experiences of conservation actions carried out between the indigenous Minotílon-Barí community and the Parques Nacionales Naturales to mitigate environmental impacts adjacent to the Parque Nacional Natural Catatumbo Bari. These indigenous populations have the longest track record of successful mitigation actions in strategic zones and ecologically important areas of Catatumbo.

11.4.2 To the Parques Nacionales Naturales (National Natural Parks) and the Corporación Autónoma Regional de la Frontera (Regional Autonomous Corporation of the Northeastern Border, Corponor for its acronym in Spanish)

Strengthen a participatory, inclusive and consensus-building conservation approach based on the experiences and knowledge of the local communities.

- Promote platforms and support their conservation agendas. In Catatumbo, there are organizations that have implemented lines of action for wetland conservation.

- Collect and systematize the experience, lessons and best practices of the Pacheli community. This is an important precedent in terms of organizational autonomy and environmental conservation strategies, because the communities developed a crop substitution initiative. That experience should be shared with a larger audience and this kind of process should be promoted in Catatumbo.

11.4.3 To NGOs and international cooperation

- Support and promote regulation and control regarding environmental issues, in order to make the most of the FARC experience, which created and set precedents in terms of regulation and conservation in social organizations.

- Encourage environmental and productive initiatives for the substitution of crops used for illicit purposes
and for environmental care and conservation, such as the payment of environmental services, taking into account that this entails certain risks (scams by intermediaries who steal money or monocultures that are presented as reforestation or conservation initiatives).

- Strengthen and develop new strategies for intersectoral agreements (government, communities and the private sector) to facilitate programs that incentivize economic alternatives, participatory monitoring of different issues and greater social participation, aspects that promote community empowerment and community governance systems.

- Invest in training and implementation of food sovereignty in peasant, indigenous and women’s communities in order to promote self-sufficiency through the cultivation of staple foods, known as *pancoger*[^152].

[^152]: In Colombia, the term *pancoger* is used to refer to the crops that satisfy part of the food needs of a given population for family or community consumption, such as corn, beans, plantains, cassava, among others.
1. BOOKS, ARTICLES AND THESSES


Institute for Integrated Transitions (IFIT). 2020. “La contribución a la reparación por parte de los comparecientes ante la JEP. Consideraciones generales”.


2. OFFICIAL AND GOVERNMENT DOCUMENTS


JEP (Jurisdicción Especial para la Paz). 2021. “Comité Interinstitucional solicita al defensor del Pueblo un informe defensorial sobre la situación de líderes, lideresas y excombatientes”. Available at https://www.jep.gov.co/Sala-de-Prensa/Paginas/Comit%C3%A9-Interinstitucional-solicita-al-Defensor-del-Pueblo-un-informe-sobre-la-situaci%C3%B3n-de-l%C3%ADderes-y-excombatientes.aspx


3. PRESS

BBC NEWS. June 25, 2020. “Glifosato: 3 preguntas sobre el herbicida por el que Bayer tendrá que pagar casi


---------. April 4, 2021. “El resurgimiento del paramilitarismo en la zona rural de Cúcuta”.

---------. October 10, 2021b. “Las amenazas contra los líderes del Catatumbo tras anuncio de las curules de paz”.

---------. October 25, 2021c. “Norte de Santander: alerta por tensiones guerrilleras en El Tarra y San Calixto”.


---------. April 4, 2022. “Artemisa no va a poder frenar la deforestación”: comandante fuerza de tarea Omega”.


---------. February 20, 2020. “Plan fronterizo para atacar la inseguridad en la región”.


gobierno-nacional-aprobo-plan-de-ejecucion-de-zonas-futuro-por-194500-millones-3205403


Semana. December 12, 2020. “Parque Catatumbo Barí, asfixiado por la deforestación y los cultivos ilegales”.


4. MAP SOURCES
(URLS CONSULTED ON JUNE 9, 2022)


5. INTERVIEWS

Interview 1. Member of a social organization in Catatumbo, November 16, 2021.
Interview 2. Public officials and technicians with expertise in environmental issues, November 18, 2021.


Interview 5. Director of a foundation for the defense of human rights, November 17, 2021.


Interview 7. Director of a government body associated with environmental issues, November 19, 2021.


Interview 9 (online). Academic researcher, December 12, 2021

Interview 10 (online). Public official, November 26, 2021.

Interview 11 (online). Human rights defender, December 5, 2021.
APPENDIX 1

TERRITORIAL AND ENVIRONMENTAL MANAGEMENT FIGURES IN CATATUMBO

<table>
<thead>
<tr>
<th>Definition of territorial and environmental management figures</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indigenous Resguarda.</strong> Collective properties belonging to indigenous communities (articles 63 and 329 of the political Constitution), which are in nature inalienable, imprescriptible and unseizable. It is a special legal and socio-political institution, made up of one or more indigenous communities who hold a collective land title and enjoy the benefits of private property. They are the owners of their territory and manage it and their lives within it through an autonomous organization backed by the indigenous jurisdiction and their independent regulatory system (decree 2164 of 1995, article 21) (Ministry of the Interior, 2013)*.</td>
<td>Two resguardos:</td>
</tr>
<tr>
<td></td>
<td>• Motilón Barí resguardo: 108,900 ha.</td>
</tr>
<tr>
<td></td>
<td>• CatalAura-La Gabarra: 13,300 ha.</td>
</tr>
<tr>
<td><strong>Parque Nacional Natural (National Natural Park, PNN for its acronym in Spanish).</strong> An area protected for its biodiversity, geology and historical or cultural characteristics which holds scientific, educational, esthetic and national recreational value (Parques Nacionales Naturales de Colombia, 2021). Activities other than conservation, education, recreation, culture, research, recovery and control are not permitted in the PNNs. The territory surrounding and adjacent to the national parks must fulfill a mitigating function and contribute to conservation objectives (EIA, 2021; Fundación Ideas para la Paz-Adelphi, 2021).</td>
<td>PNN Catatumbo-Bari: 158,125 ha.</td>
</tr>
<tr>
<td><strong>Áreas de Reserva Forestal (Forest Reserve Zones).</strong> Created by law 2 of 1959. Their aim is to develop forestry economy and soil, water and wildlife protection. They may include areas of the Sistema Nacional de Áreas Protegídas (National System of Protected Areas, Sinap for its acronym in Spanish) and collective territories (Ministerio de Medio Ambiente, n. d.)<em>.</em>**. The law forbids the allocation of vacant land in areas located within the reserve, so the settlers or inhabitants in these areas cannot formally access that land (decree 1811 of 1974, article 209). In order to be eligible for allocation, they must be withdrawn from the reserve area. Depending on the category of the reserve zone, uses are permitted, as long as the area is dedicated to the establishment, maintenance and/or use of the forest:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Type A: areas used to maintain the basic ecological services necessary to ensure ecosystem services, the protection of unique landscapes and cultural heritage, and to support biological diversity.</td>
</tr>
<tr>
<td></td>
<td>• Type B: areas featuring a cover of vegetation that facilitates sustainable management of forest resources through an approach of integrated management of forests, biodiversity and ecosystem services.</td>
</tr>
<tr>
<td></td>
<td>• Type C: areas with biophysical traits that offer conditions favourable to the development of agroforestry, silvopastoral and other sustainable productive activities; these activities should integrate the forestry approach without reducing the natural forest (Fundación Ideas para la Paz-Adelphi, 2021).</td>
</tr>
<tr>
<td><strong>Área Natural Única (Unique Natural Area).</strong> Protected area which is considered a rare natural setting for having special flora or geological conditions (Guio and Rojas, 2019; Parques Nacionales Naturales de Colombia, 2021).</td>
<td>Área Natural Única Los Estorques: 56,200 ha.</td>
</tr>
<tr>
<td><strong>Zona de Reserva Campesina (Peasant Enterprise Zone).</strong> Geographic areas that aim to promote and stabilize the peasant economy, overcoming the causes of the social conflicts that affect them and, in general, creating conditions to achieve peace and social justice. They also seek to contribute to controlling the agricultural frontier, correcting land appropriation phenomena, creating conditions for the sustainable development of the peasant economy, facilitating access for settlers and peasants to vacant land, implementing rural development policies, strengthening spaces of social and political dialogue between the state and rural communities, among others (Decree 1777 of 1996).</td>
<td>Peasant communities have established a de facto Zona de Reserva Campesina which has not yet been recognized by the state. Zona de Reserva Campesina: 346,182 ha.</td>
</tr>
</tbody>
</table>

---

* https://www.mininterior.gov.co/content/resguardo-indigena. Consulted on December 1, 2013.

** “An initial surface of 998,581 ha was declared, and 445,890 ha have been withdrawn, equivalent to almost 45% of the initial area. Most of the reserve corresponds to fragmented forests located mainly on the borders of the Parque Nacional Natural Catatumbo-Bari”. Taken from http://documentacion.ideam.gov.co/openbiblio/bvirtual/021721/PAG_60-80.pdf.


Source: independently elaborated using a variety of sources. The areas of the territorial and environmental planning figures in Catatumbo were taken from the 2021 Fundación Ideas para la Paz report.
Often, the territories in these territorial figures overlap, as can be observed in the following table:

<table>
<thead>
<tr>
<th>Figure overlap</th>
<th>Overlapping area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEZ* and FRZ** request Type A</td>
<td>59,508</td>
</tr>
<tr>
<td>PEZ and FRZ request Type C</td>
<td>115,644</td>
</tr>
<tr>
<td>Bari Resguardo extension request and PEZ request</td>
<td>107,843</td>
</tr>
<tr>
<td>Catatumbo-Bari NNP*** and FRZ (not classified)</td>
<td>51,058</td>
</tr>
<tr>
<td>La Gabarra-Catalaura resguardo and FRZ (not classified)</td>
<td>11,860</td>
</tr>
</tbody>
</table>

* Acronym in English for Peasant Enterprise Zone.
** Acronym in English for Forest Reserve Zone.
*** Acronym in English for National Natural Parks.

ABOUT THE AUTHORS

Andrés Felipe Aponte. Is a political scientist and historian at the University of The Andes and professor at the School for Advanced Studies in the Social Sciences (Paris). He is currently advisor to the Comisión del Esclarecimiento para la Verdad, la Convivencia y la No Repetición (Truth, Coexistence and Non-Recurrence Commission) and researcher in the field of conflict dynamics and peacebuilding at the Fundación Ideas para la Paz. Former researcher and coordinator of the Conflict and Peace (Conflict and Peace) team at Cinep/Programa por la Paz.

Bram Ebus. An award-winning investigative journalist, current fellow at the Pulitzer Center on Crisis Reporting and consultant for the International Crisis Group and other non-governmental organizations. He holds a Master’s degree from Utrecht University in global criminology, specializing in environmental crimes and criminal economies. Since 2010, he has researched socio-environmental conflicts, drug policy and criminal economies in Latin America.

Jennifer Vargas Reina. Recently completed her postdoctoral research at Yale University and obtained a PhD in social science research from Flacso-Mexico. She is the director and founding member of the Centro de Investigación y Acción para los Derechos Humanos (Center for Research and Action for Human Rights, CIPADH for its acronym in Spanish). Former academic researcher at the National University of Colombia and Rosario University, and professor at the Pontifical Javerian University and the National University of Colombia.

ABOUT THIS PROJECT

The Friedrich Ebert Stiftung Colombia (Fescol) has been present in the country since 1979. It aims to promote the analysis and debate of public policy, to support learning processes and interchange of international experiences, and to give visibility and recognition to peace building efforts.

Being a social-democratic foundation, we’re guided by the values of liberty, justice, and solidarity. Through our activities, we offer a space for reflection and analysis of national reality, promoting teamwork and institutional alliances with universities, thinking centers, press media, social organizations, and progressive politicians. It is within the framework of these efforts that we develop working teams with experts (academics and technicians), and politicians, as well as forums, seminars and debates. We also publish policy papers, thematic analyses, and books.

For more information, please consult: https://colombia.fes.de

The commercial use of the materials edited and published by Friedrich Ebert Stiftung (FES) without their previous written authorization is prohibited.
This report analyzes the relationship between violent conflict and environmental degradation, using the case of the Catatumbo region in Colombia as a basis, with a special focus on the impacts on local communities.

The research reviews institutional responses to the armed conflict and environmental degradation, their positive and counterproductive effects, as well as the environmental regulations at times imposed by non-state armed actors.

Historically, state presence in this region of Colombia, which borders with Venezuela in the northeast, has been precarious. The region has been the scene of prolonged and bloody armed disputes. In addition, for over a decade, it has been one of the largest coca growing regions in Colombia and the world. In recent years, it has received a large influx of migrants from Venezuela.

Violent conflicts influence environmental degradation. The effects of war on nature have been rendered invisible for many years. In addition to a growing body of research on the subject, in recent years, studies, regulations and laws have addressed the effects of war on the environment and the need to recognize nature as a rights-holder.

The report prioritizes four aspects: 1) the dynamics of the armed conflict; 2) the extractive model and its association with legal and illegal economies; 3) the impacts of insecurity and instability on rural land ownership rights and environmental management; 4) policy implementation and inadequate institutional responses that aggravate the effects of violent conflict on environmental degradation.

It also analyzes the armed and economic power relations that govern and establish who has access to what land and who is excluded.

The report makes recommendations to government bodies, civil society and international organizations, with the aim of broadening understanding of the relationship between violent conflict and environmental degradation and implementing policies from a perspective of rights, climate justice and land justice.