EXECUTIVE SUMMARY

DEFENDING THE FOREST

Dynamics of forest transformation and community-based alternatives in the northwestern Amazon region.

2020
CEALDES

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Somos lo que protegemos

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Abbreviations

PA's: Protected Areas
ART: Territory Renewal Agency
CAR: Regional Autonomous Corporation
CICOD: Intersectoral Commission for the Control of Deforestation
UNFCCC: United Nations Framework Convention on Climate Change
CONALDEF: National Council to Fight Deforestation
CONPES: National Council for Economic and Social Policy
DMI: Integrated Management District
GHG: Greenhouse Gases
ICA: Colombian Agricultural Institute
IDEAM: Institute of Hydrology, Meteorology and Environmental Studies
IGAC: Agustín Codazzi Geographical Institute
MADS: Ministry of Environment and Sustainable Development
PDET: Development Program with Territorial Approach
PNN: Natural National Parks
PIVCO: Intergenerational Pact for the Life of the Colombian Amazon
RNSC: Natural Reserves of Civil Society
SINAP: National System of Protected Areas
SINCHI: Amazonian Institute of Scientific Research
TAM: Total Available Market
SAM: Market Available to Service
SOM: Target Market
ZRC: Peasant Reserve Zones

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0. Introduction

The acceleration of climate change and the loss of biodiversity and ecosystems have caused an unprecedented environmental crisis. Colombia emits Greenhouse Gases (GHG) mainly due to deforestation processes[1] (IDEAM, 2015), which highly endangers the health of the tropical rainforest, one of the main carbon sinks on the planet. The current environmental crisis on a global scale has turned the international gaze towards Amazonian countries which are mitigating the acceleration and consequences of climate change, and efforts have been made to reduce deforestation in this ecosystem. Among these efforts are the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement to lower the planet's temperature and keep it at pre-industrial levels, and the New York Declaration on forests; taken together, these declarations ratify the urgent need to halt deforestation.

1. In 2015 National Inventory of Greenhouse Gases (GHG) Colombia, IDEAM established that deforestation generates 78.9 megatons of CO2, which is equivalent to 36% of GHG emissions, making it the main cause of this type of emissions in the country.

Ever since these multilateral agreements were signed, several supporting policies against climate change and deforestation in Colombia emerged or were modified. However, their implementation has not yet generated the expected outcomes, especially when it comes to reducing the rates of forest loss. Furthermore, repressive policies -with an emphasis on security strategies to stop deforestation- have been the subject of complaints about human rights violations affecting the communities that inhabit the Amazon region. Such a scenario has exacerbated the environmental crisis and has generated a serious humanitarian crisis, particularly in the departments further north of the Amazon region.

It is in this context that the report: *Defending the forest. Dynamics of forest transformation and community-based alternatives* was born. It aims to broaden the understanding of the effects of deforestation from a bottom-up territorial approach that highlights the substantive elements influencing the design, implementation, monitoring, and evaluation of public policies that address forest conservation.

The current report synthesizes a two-year research effort, in which a transdisciplinary research team from the Center for Alternatives to Development worked alongside peasant organizations to analyze deforestation dynamics in the northwestern Amazon region, especially since 2016 to present, a period of exponential increase. The research was structured as a multiscale approach that incorporates international, national, regional, and local levels. It involved the design and coordination of fieldwork in *Tinigua, Cordillera de Los Picachos, Sierra de la Macarena, and Serranía del Chiribiquete* National Parks where iterative conversations were carried out with local communities during several visits to their villages. Participant observation, interviews with key stakeholders, numerous workshops, inter-institutional dialogues, procedures for filing official petitions, and institutional support were carried out in the process. Likewise, data was supported by secondary sources which included the review and systematization of information related to deforestation dynamics in different statistical databases, raster images, geodatabases, journal articles, research carried out by governmental and non-governmental bodies, and ecosystem analyses.

Four additional elements were incorporated into the research strategy: a) a robust spatial analysis that compared available findings on the drivers and patterns of forest loss, and landscape changes; b) a study of the norms, agreements, laws, decrees, and other legal content related to deforestation, livestock markets, forest economy, and land policies; c) an audiovisual record made during the time in the field documenting tensions between inhabitants of the protected areas and different state institutions; and d) a strategy to produce new graphic and narrative languages as vehicles to communicate, share and discuss the findings with the communities in the region.

This document presents the findings, debates, and main conclusions of this process in six sections. The first section discusses the drivers of deforestation, its causes, and consequences throughout the studied regions. The second gives an account of the environmental impacts caused by deforestation and describes the ecosystem profile of the research area. Section three presents Colombia´s existing legal and regulatory framework related to forestry, livestock, and land matters, as well as the set of standards and actions aimed at regulating environmental and social aspects on the first link in the livestock chain and forestry activities. Section four presents a set of alternatives on the care of forests organized through the prism of different community-based, institutional and international experiences. The fifth section proposes an approach to the analysis of collective property and territorial planning such as indigenous reservations, community councils of black communities, and the Peasant Reserve Zones concerning the different management categories of protected areas existing in the country. Finally, the report presents a summary of the most relevant conclusions and findings encompassed by the investigative process.

The work carried out and condensed in this report is intended to offer theoretical and conceptual tools that allow us to understand the complexity of the phenomenon of deforestation and offer a contribution to the communities fighting to defend their territories. This experience has been one additional step - to continue reflecting jointly between Cealdes and other social organizations, in the resolution of regional socio-environmental conflicts.

In the Amazon, relationships are woven daily between local communities and their territories and thus it is a priority to strengthen collective and genuinely participatory strategies to ensure the conservation of the forests which results in buen vivir. Afro-Colombian, peasant, and indigenous communities share examples of organizing active and collaborative conservation, and we deeply appreciate their courage and willingness to contribute their knowledge, practices, and experiences to the process of knowledge building and for allowing us to share with them in their territories and accompany them in their struggles.

What is happening with the forests of the northwestern amazon region?

1.

Understanding of deforestation in the northwestern Amazon

One of the primary findings of the study is that the structural and indirect cause of deforestation in this region has its roots in processes of speculation and land grabbing. There are three direct causes associated with this phenomenon: new colonization, coca production, and cattle ranching. Of these, the last two correspond to production systems that have been developed in the region, but which, as will be explained in this document, occur in different dimensions and imply different effects on forest cover. These are not the only causes and they are not to be addressed independently, but they are the causes and drivers most directly linked to deforestation.

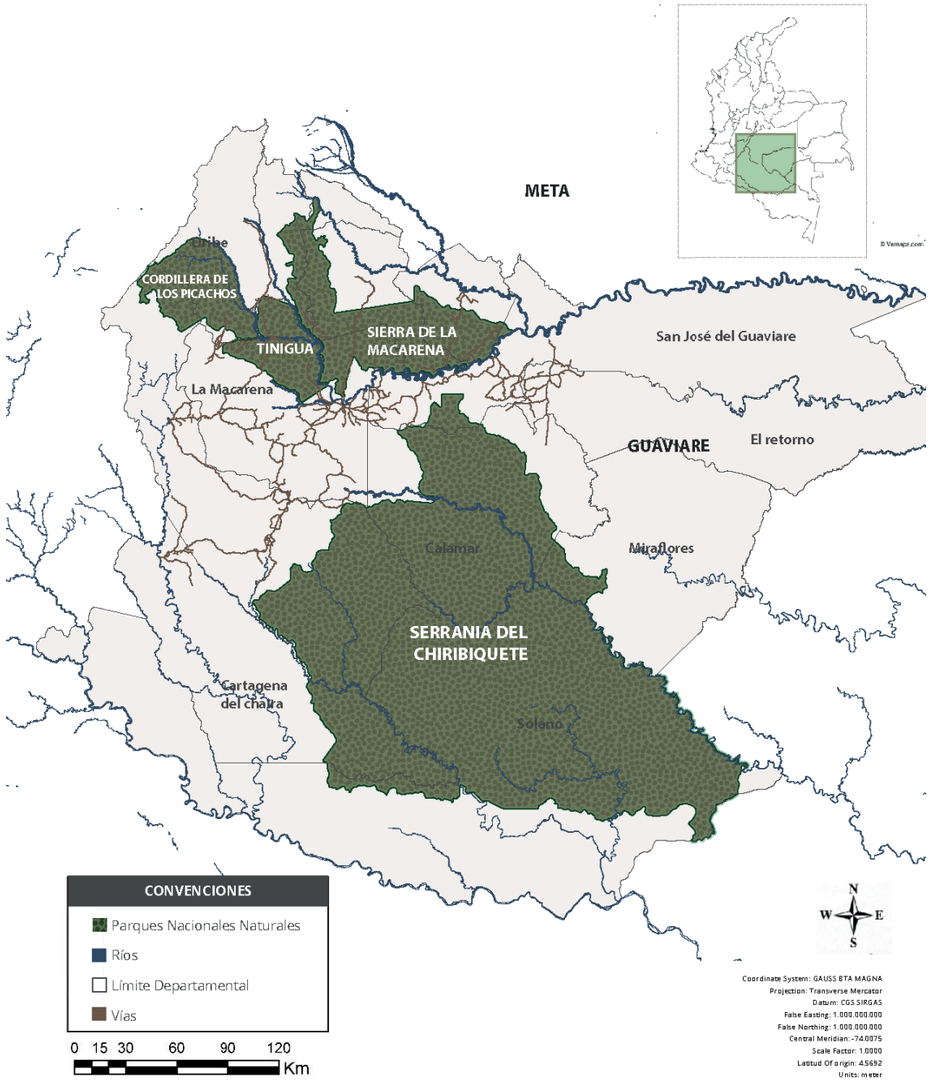


Image 1. Location of the study area

The analysis that was carried out complicates the vision so far put forward by the National Government and other entities regarding the causes and dynamics associated with deforestation. From this multidimensional observation, it was possible to understand the relevance of the changes that have recently taken place in the local governance system, the prominent role of armed actors in deforestation processes, the structuring of regional political economy on which production systems are based upon, the differentiated effects of state deforestation mitigation strategies, and the relevance of the active and purposeful participation of local communities in efforts to reduce the effects of deforestation in the region.

This can be summarized in the following three central theses (Image 2):

- The phenomenon of deforestation is essentially economic as the local governance system facilitates only two production systems associated with livestock and coca -the only ones that are viable in the region due to the absence of economic alternatives, infrastructure suitable for production and commercialization, and pressure from certain actors.

- Land is the fundamental problem, understood as a good capable of accumulating value through speculation when facing institutional absence. This absence increases legal insecurity regarding land ownership, encourages speculation, and facilitates land grabbing.

- Productive systems like livestock are consequences of a complex context. A superficial analysis would render them as the core enemy of the forest by itself, but behind these productive systems, there are complex dependency relations and "invisible actors" that hinder their transformation.

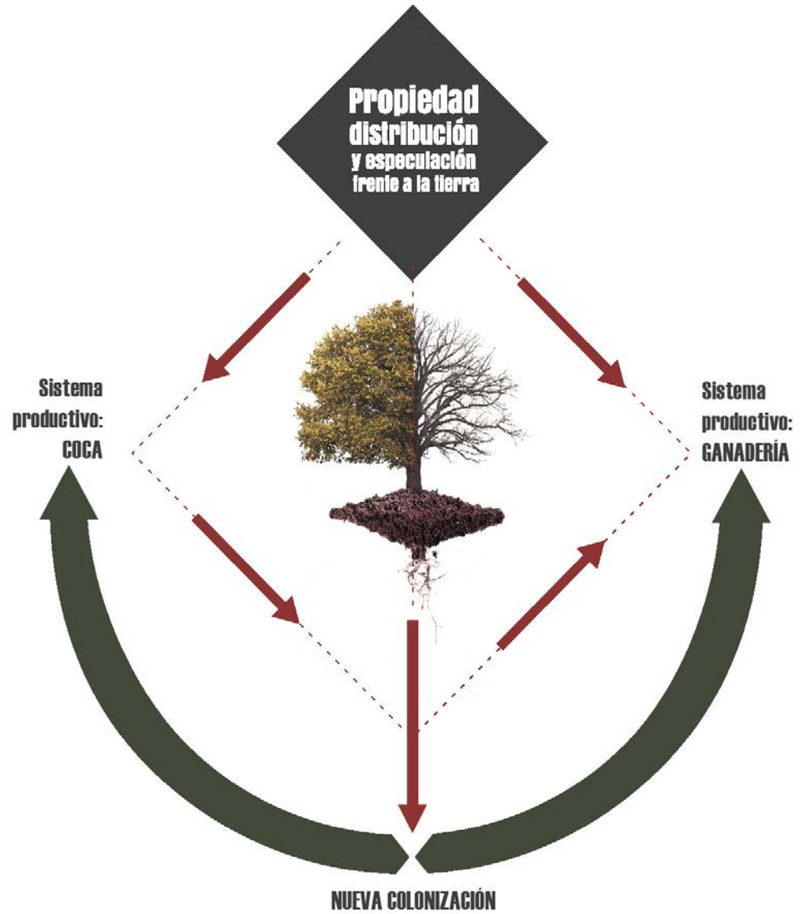


Image 2.
Causes and understanding of the phenomenon of deforestation.

The analytical strategy that this research followed indicates the relevance of relating the causes of deforestation with a historical understanding of the phenomenon when added to the description of the political economy of deforestation that determines these processes on a regional scale.

Image 3 Presents the results of a community-based timeline that accounts for the regional socio-historical context and its relationship with the phenomenon of deforestation.

LÍNEA DE TIEMPO COMUNITARIA

ECONÓMIA | GANADERÍA | COCA | TIERRAS | NORMAS COMUNITARIAS

Escala Nacional

Escala Regional

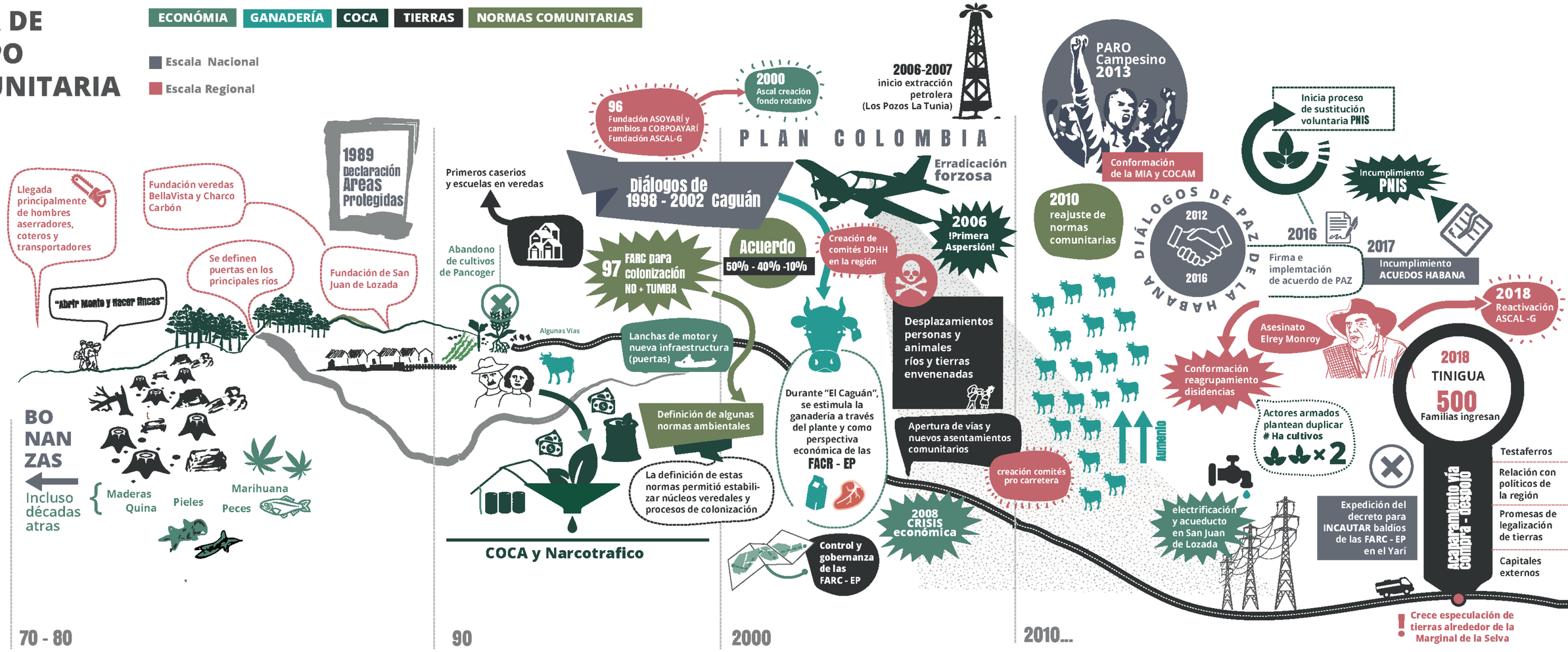
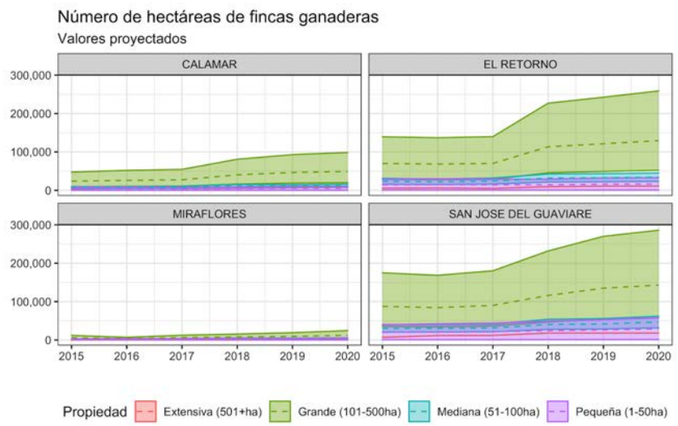


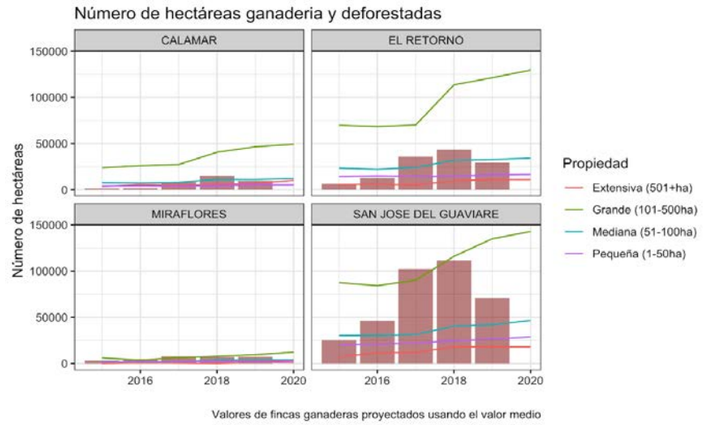
Image 3. Community timeline

Land grabbing.
The situation in the department of Guaviare

We understand land grabbing as a phenomenon of control and power over the territory (which involves both nature and those who inhabit it). The understanding of the concept of "land grabbing" is broadened by incorporating other dimensions such as the underground, the atmospheric, and the social dynamics that occur on and configure it. To understand these processes research was done on land grabbing in the Amazon, in the department of Guaviare. Following the interviews carried out and the documents analyzed, an identification and characterization analysis of the actors that are part of the process of land grabbing was elaborated, specifically for the department of Guaviare. These actors are a) large land grabbers associated with sectors of the elite of the department; b) large land grabbers that come from other departments such as Arauca and Casanare; c) medium-sized peasants who buy large tracts of land in Guaviare as a result of their displacement due to violence in places like Arauca; and, d) medium-sized peasants from Guaviare who, as a product of the coca income, bought large tracts of land to lease or speculate with it. c) medium-sized peasants who buy large tracts of land in Guaviare as a result of their displacement due to violence in places like Arauca; and, d) medium-sized peasants from Guaviare who, as a product of the coca income, bought large tracts of land to lease or speculate with it. According to data from 2015 to 2020 of the National Agricultural Census in the department of Guaviare on the number of hectares of cattle farms, it is evidenced that there is a stable growth of large property over extensive, medium, and small farms.



Graph 1.
Own elaboration based on the 2015-2020 bovine censuses carried out by the Colombian Agricultural Institute. On the X-axis: Projected values according to the average number of hectares of cattle farms; Y-axis, years of farm data.



Graph 2.
Own elaboration based on the 2015-2020 bovine censuses carried out by the Instituto Colombiano Agropecuario and deforestation figures from Global Forest Watch.

From the analysis in Figure 1 and 2, a hypothesis could be made about the medium peasants who buy large tracts of land (between 200 and 501 hectares) and it could show that contrary to what is generally assumed, large land-grabbers tend to buy dispersed patches of land in different parts of the department, instead of a continuous enclave. However, a more robust data collection is recommended to corroborate this hypothesis. Additionally, the comparison between the existing data on the number of farms obtained by the National Agricultural Census between 2015 and 2019, and the Global Forest Watch data on deforestation showed that in San José del Guaviare, Calamar, and El Retorno there is a proliferation of large properties above the deforestation figures. This could indicate that there is an ongoing process of land grabbing on areas with previous events of deforestation. In the case of Guaviare, the recurring argument explaining the phenomenon of land grabbing as a one-dimensional dynamic resulting from the violence exercised by an armed group to cause dispossession We believe that this idea must be put into perspective. The structures of the dissidents groups of the former FARC that are present in the territory are recognized as an actor with a role of strong economic-territorial control over the region. The information collected suggests that their presence and armed action does not seem to be aimed at dispossessing peasant families of their territory. We argue that it is through the unequal transactions that take place between land grabbers and peasants who do not have enough resources to produce and sell, that the latter are forced to sell their properties. In addition to the above, land grabbing is not necessarily based on control over vast contiguous tracts of land, located in one place, but can occur through massive land purchases by the same agent in different parts of a municipality or across the Department.

2.

Is land the central problem?

The formalization of rural land

Although there are various ways to formalize the use of rural land, it is necessary to take into account its particularities and the limitations of territorial planning. To do this, it is essential to have the updated property data in the Amazonian departments, as it is necessary to understand the kind tenure over the land, and find a way to improve the conditions of ownership.

The social and economic dynamics of the rural areas of the region show that the legality of property is not a priority for its inhabitants since there are other ways to relate to the State. For example, several of the interviewees commented that they are not concerned about registered deeds because, with a *certificate of sound possession* issued by the Communal Action Board, most procedures can be carried out. That goes from applying for a bank loan to being a beneficiary of a state or international cooperation project.

Additionally, locals mention that projects promoted by state institutions and NGOs are inclined towards livestock, which generates contradictions with the designated categories of territorial planning versus potential land use of the Amazonian soil. For this reason, it could be hypothesized that there are actually no illegal ways to obtain land ownership. The dynamics are much more heterogeneous, dispersed, complex, and alternate between legality and illegality.

Land grabbing.
The situation in the department of Guaviare

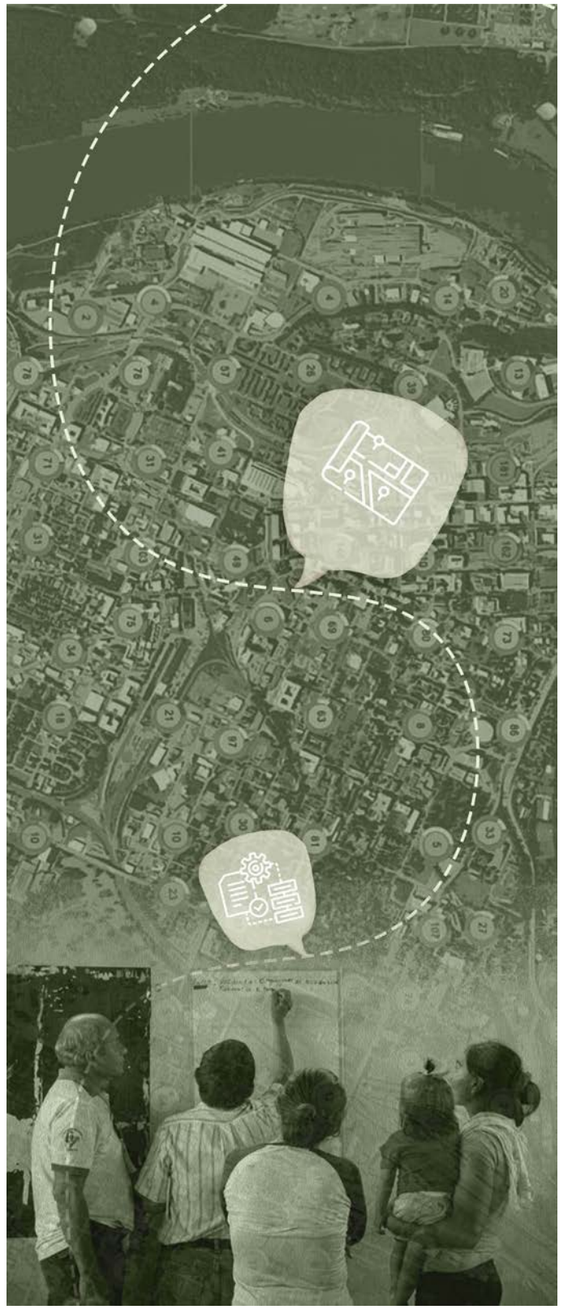
After the Pact for Regional Transformation in the Macarena-Guaviare Subregion in 2020, the roadmap to direct the implementation of the PDETs at the municipal and subregional levels was still unknown. The participatory process during the early stages of the PDET (up to the subregional stage) was considered satisfactory by the people interviewed.

However, for the definition of the roadmap, participation was limited to the socialization carried out by the Territory Renewal Agency (ART) with the motor groups. Given that one of the main objectives of the PDET was to generate a participatory process for land use planning, it is considered necessary for the State to continue prioritizing these approaches to harmonize them with technical requirements. ART and other institutions should improve the communication and socialization channels and road maps to share information with the communities and with municipal and departmental public officials. The mayors of each of the four municipalities of the Department of Guaviare for the period 2020-2023, adopted the PDET in their Development Plans, which is considered an important advance in the purpose of giving continuity to the process. In fact, in October 2020, the mayor of Calamar was awarded the PDET senior management award for the authorization and reconstruction of tertiary roads in the municipality (Dinero.com, October 26, 2020). In general terms, according to ART data in the department, progress in the formulation and implementation of projects in Guaviare is significant; Pillar 2 is the most advanced of all that comprise it, while the least advanced one is Pillar 1. This study found that there was disagreement on the part of some communities regarding the delivery of public works, due to factors associated with: a) the level of bureaucracy that that they had to go through to be part of these projects as executors; b) some of the works not only ended up in the hands of companies but the works were not executed as agreed with the communities; c) the models that were delivered were different, the materials were not of good quality, etc.

Therefore, there must be monitoring of the execution of public resources in PDET since they are to be implemented to avoid cases of corruption and cost overruns in these processes. In particular, we consider it necessary to carry out detailed monitoring of the resources that are going to be used in the *Zona Futuro* of Chiribiquete, since the PDET resources should be focused on what was agreed during the municipal phase and the subregional phase, and should not be allocated to finance any work of a military nature that threaten the life of the communities.

It is necessary to organize and begin the projects related to Social Property Management considering, above all, that they are focused on land and planning issues, which is expected to be the one issue that will take the longest to implement in the 15-year projection of the PDETs.

It is important to accelerate the implementation of the Peace Agreement and the points that guarantee the rights of peasant communities, and the management of environmental conflicts associated with deforestation. In particular, the implementation of the multipurpose cadastre and the environmental zoning are critical to tackle deforestation. It is also recommended to advance on other mechanisms contemplated in the Peace Agreement, such as the stratgies to strengthen the Peasant Reserve Zones, and the implementation of a progressive tax on land ownership, which can limit and discourage the land market, speculation processes, and land grabbing associated with deforestation.



Multipurpose Cadastre

So far no significant progress has been detected in the implementation of the Multipurpose Cadastre in Guaviare, so it was necessary to understand the financing with which this implementation could be advanced. Based on a petition of information filed to the ART presented to corroborate this investigation, we know that there are in fact cooperation resources for its implementation in the department. However, in one of the interviews carried out with an IGAC official, it was mentioned that there is no knowledge on this aspect, nor of the source of financing of the cadastre. Although it is true that it does not necessarily mean that the IGAC as an institution does not know of it, it shows that there is not an execution plan or roadmap that is known to the officials responsible for the implementation of the Multipurpose Cadastre in the region.

Due to the dynamics described above, it is necessary to urgently apply the Multipurpose Cadastre as a support instrument in reducing the accumulation and land grabbing of vacant lots in Guaviare. It is not only about the creation of a real inventory of the area but it is imperative for the consolidation of legal security systems that allows guaranteeing the property rights and the land-use agreements of peasant communities.

Local leaders are advised to initiate all pertinent actions to form and update their cadastres with the support of responsible national entities using all the financial mechanisms available to them, which includes a varied set of state and cooperation possibilities including resources from the General Royalties System, credits from the World Bank and the Inter-American Development Bank, and cooperation resources from international governments such as the United Kingdom, Germany, Norway, Switzerland, and the Netherlands, among others.

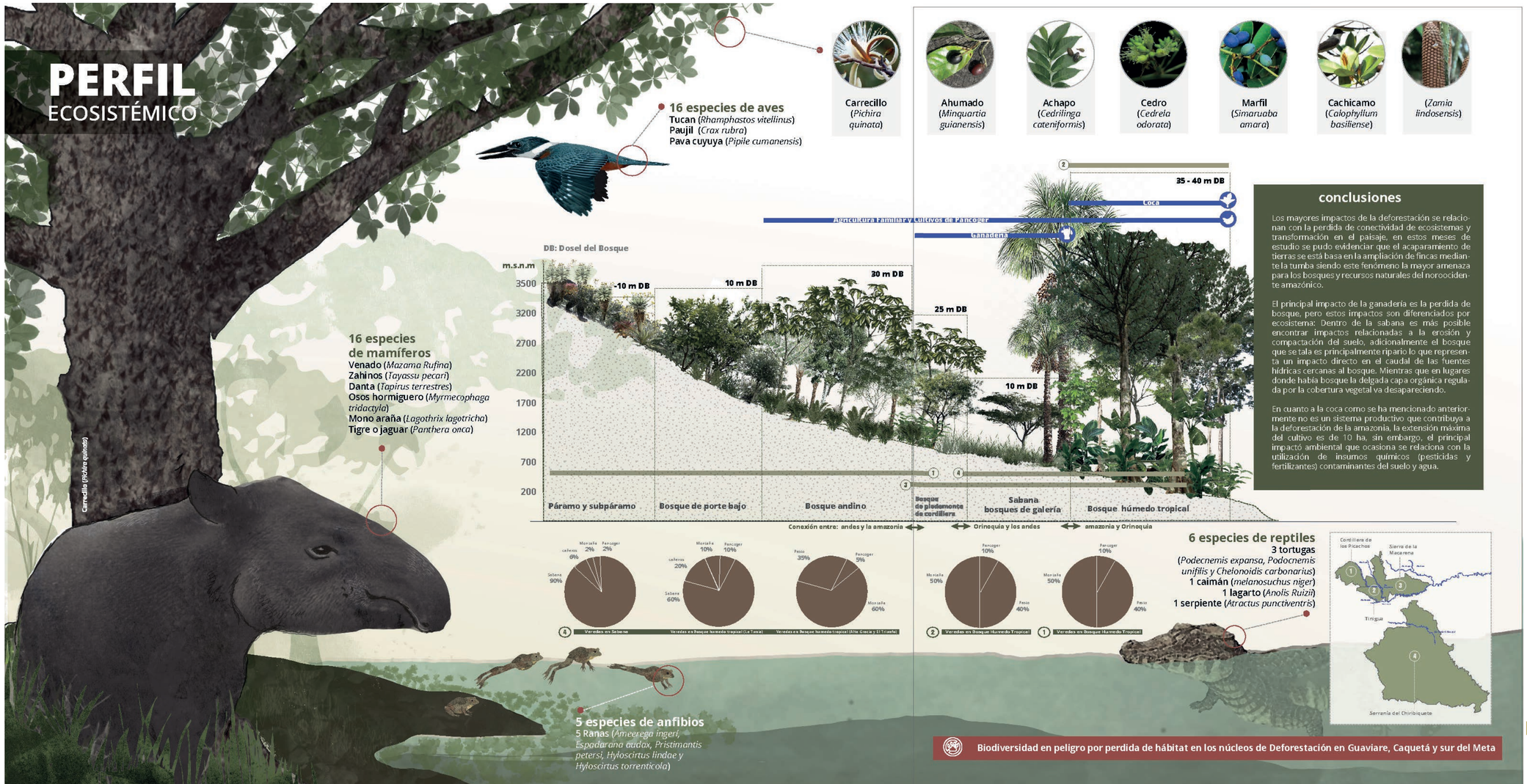
It is also advised to follow the implementation of the multipurpose Cadastre with an update of the fiscal policy, which will allow for equitable property taxation so that those stakeholders who have more must contribute more, and those who have fewer will pay less.

What is the forest like and what is happening to it?

3.

Ecosystem profile and environmental consequences of deforestation

The ecosystems of the northwestern Amazon region of Colombia have been seriously impacted by the accelerated deforestation. Among the most documented impacts and with the greatest consequences in terms of biodiversity, is the loss of connectivity. Not only between forests but also between other bio-regions which establish a continuum between the ecosystems of the Andes, the Amazon, and the Orinoquia.



conclusiones

Los mayores impactos de la deforestación se relacionan con la perdida de conectividad de ecosistemas y transformación en el paisaje, en estos meses de estudio se pudo evidenciar que el acaparamiento de tierras se está basa en la ampliación de fincas mediante la tumba siendo este fenómeno la mayor amenaza para los bosques y recursos naturales del noroccidente amazónico.

El principal impacto de la ganadería es la perdida de bosque, pero estos impactos son diferenciados por ecosistema: Dentro de la sabana es más posible encontrar impactos relacionadas a la erosión y compactación del suelo, adicionalmente el bosque que se tala es principalmente ripario lo que representa un impacto directo en el caudal de las fuentes hídricas cercanas al bosque. Mientras que en lugares donde había bosque la delgada capa orgánica regulada por la cobertura vegetal va desapareciendo.

En cuanto a la coca como se ha mencionado anteriormente no es un sistema productivo que contribuya a la deforestación de la amazonia, la extensión máxima del cultivo es de 10 ha, sin embargo, el principal impactó ambiental que ocasiona se relaciona con la utilización de insumos químicos (pesticidas y fertilizantes) contaminantes del suelo y agua.

In ecological terms, it is clear that the phenomenon of deforestation has very important consequences. The fragmentation of the connectivity of forest ecosystems and the flows of some tributaries that are being strongly diminished stood out in the workshops with local organizations since there are communities that can only access water through deep wells. Also, forests and savannas, which are the two groups of ecosystems commonly used (or replaced) for different production systems, have been affected differently. In table 1, a collection of the effects by ecosystem and by productive system is presented.

Image 4. Ecosystem profile

Impactos / Ecosistema / Sistema productivo	Praderización para acaparamiento	Ganadería de Sabana	Ganadería de zonas boscosas	Coca
Planting brachiaria decreases the water holding capacity of the soil.	✓	✓	✓	✗
Loss of soil microorganisms such as: mycorrhizae, nitrogen-fixing bacteria, methanotrophic bacteria, among others.	✓	✓	✓	✓
Decrease of organic matter in the soil.	✓	✓	✓	✓
Physical-chemical and microbiota modification due to the application of chemical inputs.	✗	✗	✗	✓
Effect of evapotranspiration processes of plants that affect precipitation in the Amazon and Andean region.	✓	✓	✓	✓
Changes in the flow of rivers as a consequence of the decrease in runoff from the Andes Mountains.	✓	✓	✓	✗
Pollution increases due to the entry of animals into bodies of water.	✗	✓	✓	✗
Contaminants in water bodies from the production of dairy products.	✗	✓	✓	✗
Contamination by chemical inputs used in the cultivation and in the transformation to base paste.	✗	✗	✗	✓
Increased seasonality, stronger droughts, and extreme floods in times of rain.	✓	✓	✓	✓
Loss of connectivity in the matrix and transformation of the landscape.	✓	✗	✓	✗
Replacement of cover associated with gallery forests and natural savannas by introduced pastures.	✗	✓	✗	✗
Loss of connectivity, especially in riparian forests.	✗	✓	✗	✗
Expansion of the agrarian frontier.	✓	✓	✓	✓

* Livestock in the savannah and in areas that were previously forested is carried out mainly in areas where there is a high influence of runoff.

Table 1. Impact by ecosystem and productive system

From a spatial analysis of the determining processes of deforestation in the study area, different patterns associated with productive systems such as livestock (in the savannah and the foothills), coca crops, and other more complex territorial processes were identified, such as colonization or land grabbing, closely linked to vectors such as main roads and historical phenomena that transform the context.

To evaluate transformations, land cover mapping by the Amazonian Institute of Scientific Research (SINCHI) for the entire Colombian Amazon in the years 2002, 2007, 2012, 2014, 2016, and 2018 was used; based on three scales of analysis: regional (Colombian Amazon), departmental (Guaviare and Caquetá) and municipal (San Vicente del Caguán, Caquetá; La Macarena, Meta; and San José del Guaviare, Guaviare). The general analysis showed that for the Colombian Amazon, the forests, shrubs, and fragmented areas, despite being of the classes with the most extensive areas, have had significant decreases in the time range analyzed. These alterations translate into a significant increase of grasslands, secondary vegetation, and open areas with scant vegetation. These data show a strong and progressive decrease in forest coverage in the Amazon region, since it went from occupying **83% of the Amazon in 2002, to little more than 79% in 2018.** Although it seems to be a small reduction of less than four percentage points, it is key to mention that such reduction is equivalent in absolute terms to **1 '742,829.16 hectares of forest that had disappeared in just 16 years.**

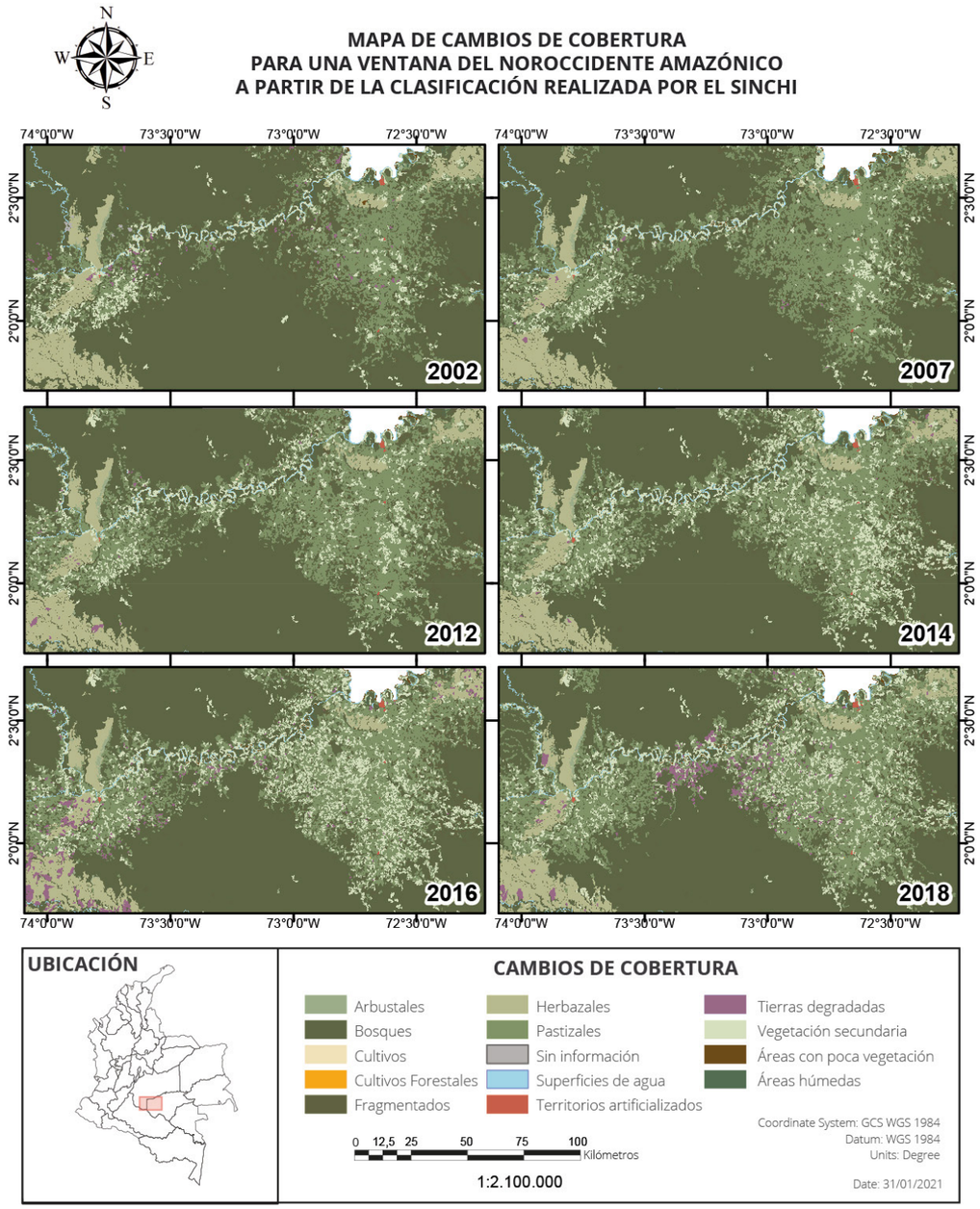


Image 5. Map of coverage changes based on the classification made by the SINCHI institute

How is the northwestern Amazon region planned?

4.

Legal and regulatory instruments and good practices in Colombia

Climate change, the growing loss of forest cover due to deforestation in the Amazon, and the violation of the rights of rural communities whose subsistence depends on the use and exploitation of forests are interrelated problems that determine the implementation of policies on multiple scales. , programs and projects of the different actors that directly or indirectly affect the Amazon region. These actors include the international community, multilateral organizations, environmental agencies, government entities, companies, and peasant, indigenous, and black communities.

Climate change is recognized globally as a reality and is positioned on the agenda of multilateral organizations as one of the great challenges that humanity as a whole must face. The United Nations Framework Convention on Climate Change (UNFCCC) was ratified by 197 countries, and the recent conventions signed in the framework of that Convention to reduce the planet's temperature and keep it at pre-industrial levels, such as the Paris Agreement and the declaration of New York on forests, ratify the need to stop deforestation because it is a phenomenon associated with the Emission of Greenhouse Gases (GHG) in the Global South, and because of the prominent role that forests play as important sinks of these emissions. In addition, communities that live in the forest have autonomously exercised fundamental environmental governance to regulate the use of forest resources, water and other common goods, but their rights have been violated by the implementation of measures to curb deforestation but do not recognize or articulate other land tenure rights, processes of formalization of property, and in general, the territorial rights of communities.

Legal and regulatory instruments

Currently, the management of forests in Colombia is regulated by different regulatory bodies, institutions, and jurisdictions. Some of them are related to the forest economy and the conservation of the nation's natural resources, which make up the environmental policy and other legislation and institutions that embody the sustainable development policy of the forest sector.

In this phase of the research, a characterization was made of the legal instruments of land policy and land use planning in Colombia, as well as the regulations of the country's livestock and forestry policy. Additionally, the legal instruments of transparency, business practices, and accountability in the Colombian livestock and forestry sector were identified and characterized. Information was also collected on the general legal framework that intervenes in forestry, livestock, territorial and environmental practices that have a direct or indirect impact on deforestation dynamics in the prioritized study area: PNN Chiribiquete, PNN Sierra de la Macarena, PNN Tinigua, and PNN Picachos.

Through the development of a normative matrix, an instrument to select by periods and at least 50 analytical categories (such as Land Use, National Natural Parks, Livestock, among others) was built. The different relationships that can be established between these categories and the different normative scales compiled in the matrix. With this information, a timeline for the legal scales and their transformation and evolution over time was also elaborated. It was all complemented with Infographics regarding hard and soft norms and practices on transparency in the livestock and forestry sector. Finally, for the analytical development of these instruments, three jurisprudential lines followed the most significant problems regarding the effects on the guarantee of rights of these policies on individuals and populations. Below are more detailed aspects of each of these instruments.

The normative matrix analysis livestock and forestry policies through the classification and categorization of the national and international regulations that have interference in the country, in a time frame that begins in 1919 with the reform of the Tax Code, the year in which the figure of "national forest" began to be used more frequently in Colombian legislation. The normative review covers until 2019, the year in which the strengthening of military and judicial strategies is evidenced. This is also when administrative measures against deforestation and where environmental management begins to fluctuate between police mechanisms for the protection of the environment and the adoption of national and international certification criteria in forestry matters. This matrix was constructed from the analysis of institutional sources and documents.

Legal timeline

This tool offers a strategy of visualization in time of the main milestones of legislation and policies in the field of land, forestry and livestock use, and territorial and environmental planning. In addition, it includes the moments of creation, expansion, and management plans of the four NNPs prioritized by the project. This tool places the legislation in a national and global historical context that allows us to understand the density of the potential impacts of this regulation in the study area and its similarities and relationship with wider national legal processes.

From the timelines, three important moments with specific trends related to the socio-territorial and environmental dynamics are identified. Together, these periods allow an agile visualization of the different socio-political, economic, and legal situations that have influenced the configuration of the conflicts that affect this area of the country and that are recently capturing the attention of the media.

1

1950 - 1990

design to manage and administer environmental issues; In addition to including the first attempts to formalize and democratize the land, stimulate agricultural colonization towards the lowlands of the country, modernize regional production processes to insert them into the national and global market, create technical institutions related to agricultural processes and define the first types of land use planning associated with protected areas in this region of the country.
It is characterized by the issuance of various specific regulations for each of the

2

1990 - 2010

priority sectors in research and by the coexistence of agricultural development policies linked to opening reforms and neo-liberalization of the national economy. Also due to the intensification of extractive strategies associated with the mining-energy sector and the positioning of a national security agenda focused on the control of crops declared of illicit use and military counterinsurgency strategies.
Includes institutional specialization within the framework of comprehensive

3

2010 - 2019

policies derived from the Peace Agreement that have an impact on the study area, mainly associated with a new drive for state democratization within the framework of restorative justice principles, while at the same time, a new strategy of entrepreneurship of the rural sector is promoted.

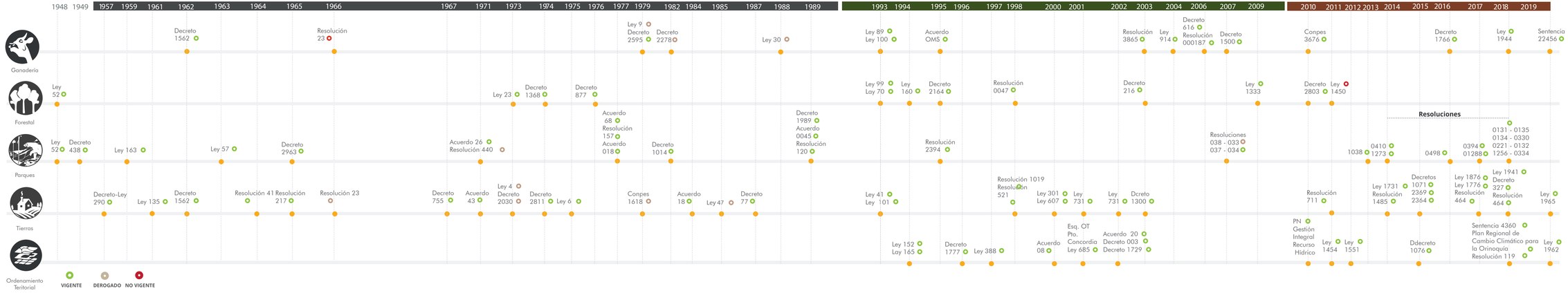


Image 6. Legal timeline

Source: Own elaboration

Línea de tiempo presidencial

1946-1950	Luis Mariano Ospina Pérez
1951-1953	Roberto Urdaneta Arbeláez
1953-1957	Gustavo Rojas Pinilla
1957-1958	Junta Militar de Gobierno
1958-1962	Alberto Lleras Camargo
1962-1966	Guillermo León Valencia
1966-1970	Carlos Lleras Restrepo
1970-1974	Misael Pastrana Borrero
1974-1978	Alfonso López Michelsen
1978-1982	Julio César Turbay
1982-1986	Belisario Betancur
1986-1990	Virgilio Barco
1990-1994	César Gaviria Trujillo
1994-1998	Ernesto Samper
1998-2002	Andrés Pastrana
2002-20010	Álvaro Uribe Vélez
2010-2018	Juan Manuel Santos
2018-2022	Iván Duque Márquez

Línea ampliada

Matriz

The jurisprudential lines are a methodology of legal analysis that accounts for the decisions of the High Courts over time and the rationality that those decisions express around a legal problem. The legal problem is a controversy that should manifest tension between rights and/or legal principles. Each jurisprudential line evidences the decisions that a Court has taken over time from different sentences that are located in the line from top to bottom, following a progressive chronological order.

For this research, three (3) central elements were identified in the socio-political and economic dynamics of the study area, which have direct interference in the deforestation processes: 1. Aerial spraying of crops for illicit use. 2. Inhabitants in protected areas. 3. Subtraction of protected areas.

Thus, the lines correspond to the following problems legal:

- Does aerial spraying with glyphosate violate the right to a healthy environment and public health? code
- Are the rights to work, to a decent life, to food security and sovereignty, housing, education and to a minimum living standards for vulnerable peasant communities harmed in fulfilling the duty to protect National Natural Parks when these communities live or carry out their activities in areas of special constitutional protection? Code
- Are the areas of special ecological importance subject to state or administrative subtraction when economic activities such as mining or education are required? Code

The abundant legislation on environmental regulation is not effective in the regional context due, among other reasons, to the lack of institutional articulation or even the will to enforce the legislation, the paradoxes and gaps in policies, and the absence of a comprehensive institutional design suited to the social and ecological uniqueness of the region.

There is a simplification of the relationship with local populations, which are considered either allies or enemies of institutional management, ignoring their knowledge and experiences as potentialities for comprehensive management of the territory. In this regard, it is considered necessary to harmonize existing policies and develop a coherent model that links the conservation of natural resources with the design of sustainable productive strategies, strengthening the institutions in terms of their capacity for implementation and inter-institutional coordination, and effectively incorporate the social and community sectors that inhabit the territories through mechanisms of participation in the design, implementation, and evaluation of public policies.

The Constitutional Court falls short in balancing decisions between social and environmental rights. However, it has developed its legal framework towards recognizing rights of protection for the environment and at the same time recognizing that everyone must protect, maintain and restore ecosystems. In some of its tutelage rulings, the right to the environment prevails over economic or educational activities, and in others, it does not

To overcome their ineffectiveness, policies must be designed from an intersectoral matrix, which recognizes the multidimensionality of the land use phenomenon taking into account the Socio-ecological singularities of the North Amazonian context.

Roadmap of good practices and sanctions in the livestock and forestry sector

Livestock has been considered as a rational and adequate activity for the use of land in Colombia, which was consolidated in Law 30 of 1988. This explains the allocation of many lands in Colombia to this economic activity and the generalized perception that livestock is a desirable activity in all rural sectors of the country. As a consequence, cattle growers were able to increase their production of meat and milk using existing techniques by expanding the land dedicated to livestock instead of technifying the production (García, 2006). Land grabbing understood as land accumulation is at the same time an incentive and an effect of extensive and low-technology livestock farming, which causes a high level of environmental degradation due to the inappropriate use, and becomes a factor that runs counter to strategies for the democratization of land.

Since Colombia joined the international standards for sanitary and phytosanitary measures in the livestock sector, there has been a tightening of regulations throughout the livestock production and marketing chain (Decrees 616 of 2006, Decree 1500 of 2007, Law 1944 of 2018). The entities name these standards as "good livestock practices". However, its implementation has paradoxically led to the marginalization of small peasant producers who have enormous difficulties in complying with these standards in regional and local contexts marked by informality in the livestock sector. This process is part of a national and global context in which compliance with international health standards is an effect of international law that provokes diplomatic dynamics and social pressure that mark the entry into a community of "civilized" nations (Merry, 2006).

The regulations and policies of good livestock practices contain regulations on slaughter, safety, animal welfare, transportation, and marketing of cattle and buffalo. Currently, a series of policies around environmental sustainability in the livestock sector have been developed and incorporated, including zero deforestation seals and other certificates such as the Rainforest Alliance. These certificates are an effort to mitigate the environmental damage caused by the livestock sector in its operations. However, the possibility of certifying all livestock production under certain environmental and health standards is remote for most small producers and livestock traders who carry out their livestock practices in contexts marked by marginality and informality.

Image 7. Good Livestock Practices

Environmental and forestry policy

Law 2 of 1959 on Forest Reserve Zones is the backbone of the policy for the use and conservation of natural commons in Colombia. This law establishes the relationship between the development of the forest economy and the protection of soils, waters and wildlife. Similarly, it establishes the character of "Protective Forest Zones" and "Forests of General Interest" and defines seven large Forest Reserve Zones that still exist to date. Forest Reserve Zones such as the Amazon constitute the heart of environmental policy, but also the center of disputes over natural and territorial common goods. A large part of the areas protected by this legislation has been stolen for economic and political purposes.

The processes of directed and spontaneous colonization due to violence and the search for economic opportunities have configured social and ecological pressures on these areas.

However, this legislation has been key to the development of an early vision on the protection of natural resources. In total, at present, there are 12 '602' 329.7 hectares under types of environmental protection and conservation, that is, more than 12% of the national territory, according to National Natural Parks of Colombia. The environmental institutionality had significant transformations with the 1991 Constitution, but the general framework of use and protection does not change much. However, stronger institutions such as the Ministry of the Environment were born, which has played an

essential role in directing environmental and forestry policy ever since.

At present, the management of forests in Colombia is regulated by different regulatory bodies, institutions, and jurisdictions; some related to the forest economy and the conservation of the nation's natural common goods, which make up the environmental policy and other legislation and institutions that embody the sustainable development policy of the forest sector.

¿QUÉ SON LAS BUENAS PRÁCTICAS FORESTALES?

Son un conjunto de normas y acciones (leyes, decretos, resoluciones y políticas) tendientes a regular los aspectos ambientales y sociales de la actividad forestal

Términos Clave

Bosque

Ecosistema construido predominantemente por los árboles u otra vegetación leñosa de cualquier tamaño, capaces de producir maderas u otros productos forestales.

Bosque Natural

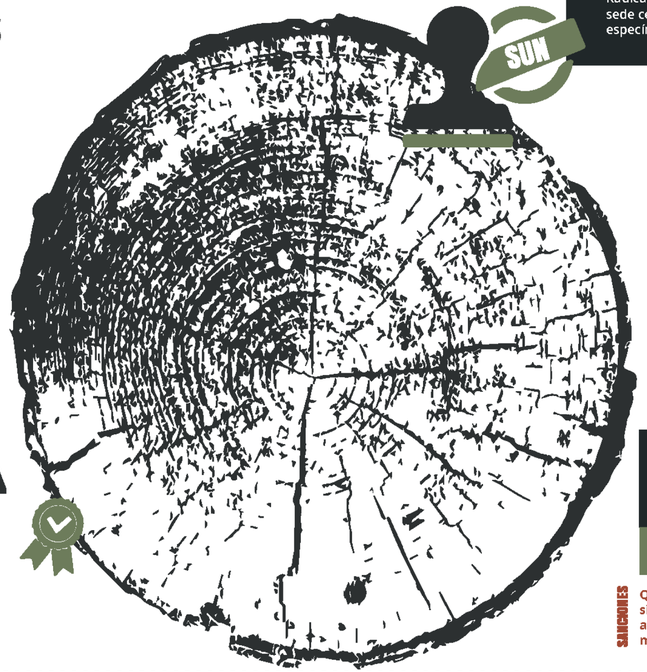
Es un ecosistema que no ha sido plantado por el hombre.

Tala

Es el apeo o el acto de cortar

¿quién expide los permisos forestales?

CAR Corporación Autónoma Regional



1 SUN Salvoconducto Único Nacional para la Movilización de especímenes de la diversidad biológica

Radicando la solicitud ante la Dirección Regional correspondiente o en la sede central de la CAR demostrando la procedencia legal de los productos, especímenes, ejemplares o individuos de la flora y fauna silvestre.

Es importante tener claro los siguientes términos:

Productos forestales de transformación primaria: son los productos obtenidos directamente a partir de las trozas como bloques, bancos, tablones, tablas y además chapas y astillas, entre otros.

Movilización: Transportar por primera vez los especímenes de la diversidad biológica, cuya obtención esté legalmente amparada.

Removilización: Transportar nuevamente los especímenes de la diversidad biológica,que han sido objeto de movilización.

Renovación : Expedir un nuevo salvoconducto autorizando el transporte de los especímenes de la diversidad biológica, cuando no haya sido posible su movilización y se haya vencido el término

2 Aprovechamiento o autorización forestal para árboles

Permiso que otorga la CAR para aprovechar talar, transplantar árboles aislados de bosque natural o plantado, localizados en terrenos de dominio público o en predios de propiedad privada que se encuentren caídos o muertos o que por razones de orden sanitario o de ubicación estén causando perjuicio.

De acuerdo con el ARTÍCULO 2.2.1.1.3.1. del Decreto 1076 de 2015, las clases de aprovechamiento son: Únicos - Persistentes - Domésticos

SANCIONES

Quienes adelanten el aprovechamiento sin el permiso o autorización respectiva, asumirán la imposición de las siguientes medidas preventivas

Sanciones Decomiso

Algunos Instrumentos de Gobernanza Forestal

1. El Pacto Intersectorial por la Madera Legal en Colombia (PIMLC)
2. Protocolo para la Revisión y Evaluación de Planes de Manejo Forestal
3. Protocolo para Seguimiento y Control a los Aprovechamientos Forestales en Bosque Natural
4. Protocolo para Seguimiento y Control a la Movilización de Productos Maderables y Productos no Maderables del Bosque
5. Protocolo para el Seguimiento y Control a Industrias y Empresas de Transformación y Comercialización de Productos Forestales
6. Protocolo para la Revisión y Evaluación de Planes de Manejo Forestal
7. Esquema de Reconocimiento a la Procedencia Legal y de Promoción hacia el Manejo Sostenible...
8. Esquema de Reconocimiento a las Empresas Forestales de Transformación y Comercialización de Productos
9. Manual de Buenas Prácticas en las Industrias Forestales
10. Guía de Cubicación de Madera
11. Uso y legalidad de la madera en Colombia Análisis parcial
12. Guía para exportar e importar productos maderables y no maderables en Colombia
13. Guía para exportar e importar productos maderables y no maderables en Colombia
14. Comercio exterior de productos forestales maderables (PFM) Período 2011-2015.
15. Cubimadera
16. Aplicación Especies maderables
17. Estrategia Nacional de Prevención, Seguimiento, Control y Vigilancia Forestal-ENPSCVF

Image 8. Good Forestry Practices

Finally, the environmental sanctioning procedure found in Law 1333 of 2009 for actions such as transporting wood or livestock without safe conduct, is ineffective as are other similar procedures such as environmental crimes found in the Penal Code. It requires the articulation of state institutions of the entities that exercise environmental control and surveillance functions such as the CAR, the ICA, the Attorney General's Office, the National Police, and other institutions. This institutional articulation has not been effective, which is reflected in the failure to enforce the law, and in cases where administrative or criminal sanctions are executed, it is done against small farmers who do not have the economic capacity to pay the sum of the sanction.

There is a lack of institutional articulation regarding the role that each institution must fulfill in the environmental and public health fields for both the livestock sector and the forestry sector.

Environmental regulations on deforestation and climate change

Due to the robust regulation of laws, decrees, agreements, plans, and programs against deforestation and climate change, the National Government must unify in a public policy the control of deforestation and the mitigation and adaptation to climate change, due to the relationship that exists between both environmental issues, and that allows to articulate and focus the different actions contemplated in the regulations in this regard. The recent CONPES 4021 of 2020, has the potential to advance in that direction because it proposes the articulation and targeting of actions foreseen in the regulations, which have already been mentioned in this report, and which involve, among others, the "Forests of Life" Strategy. , Judgment 4360 of 2018, the implementation of the Paris Agreement on Climate Change, and the Goals of the Joint Statement of Intent. It is recommended that the National Government be able to generate greater articulation and targeting of these actions, thus as its immediate implementation. Likewise, to work on the articulation of actions, it is essential to comply with the orders dictated by Sentence 4360 of 2018 and the generation of real participatory processes for the inter-agency construction of the PIVCO and the Deforestation Control Plan. In addition, support at the national level is essential so that territorial governments can comply with the updating of the Territorial Ordering Schemes and Plans that Sentence 4360 of 2018 dictated.

To reduce deforestation rates, comprehensive action by the State is required; This implies strengthening the inter-ministerial, inter-agency, and inter-sectoral articulation of the actors and institutions that, from different scales (eg local, regional, national, etc.) are related to the dynamics of deforestation and the policies to tackle it.

Despite the creation of formal mechanisms for the articulation of actors and institutions such as CICOD and CONALDEF, so far no effective articulation of comprehensive actions has been achieved and in the actions implemented the defense and environment sectors have played a leading role, a fact that demonstrates the greater articulation of the infrastructure and agrarian sectors in the comprehensive intervention to reduce deforestation, in addition to ensuring genuine participation of peasant organizations, which are fundamental actors for public policy. It is recommended that these articulation mechanisms can be implemented more efficiently to address the structural and multi-causal conditions of deforestation, guided by actions of state legitimacy and effective presence of institutions to guarantee environmental sustainability and the rights of communities.

The actions of the judicial system should be aimed at identifying and punishing the wide networks of land grabbers and speculators, because opening criminal proceedings only for small farmers leaves out the main agents of deforestation, who are widely known in the territory, but are not reported due to intimidation and fear of reprisals against the complainants, in a region where there are also high rates of impunity and a weak presence of government entities.

It is recommended that these articulation mechanisms can be implemented more efficiently to address the structural and multi-causal conditions of deforestation, guided by actions of state legitimation and the effective presence of institutions to guarantee environmental sustainability and the rights of communities. The actions of the judicial system must be directed at the wide networks of land grabbers and speculators, as opening criminal proceedings only to small farmers leaves out the main agents of deforestation, who are widely known in the territory but not formally recognized due to intimidation and fear. They are denounced for reprisals against the complainants and act with impunity in areas with a weak presence of government entities.

Síntesis del marco normativo en Colombia sobre deforestación y cambio climático

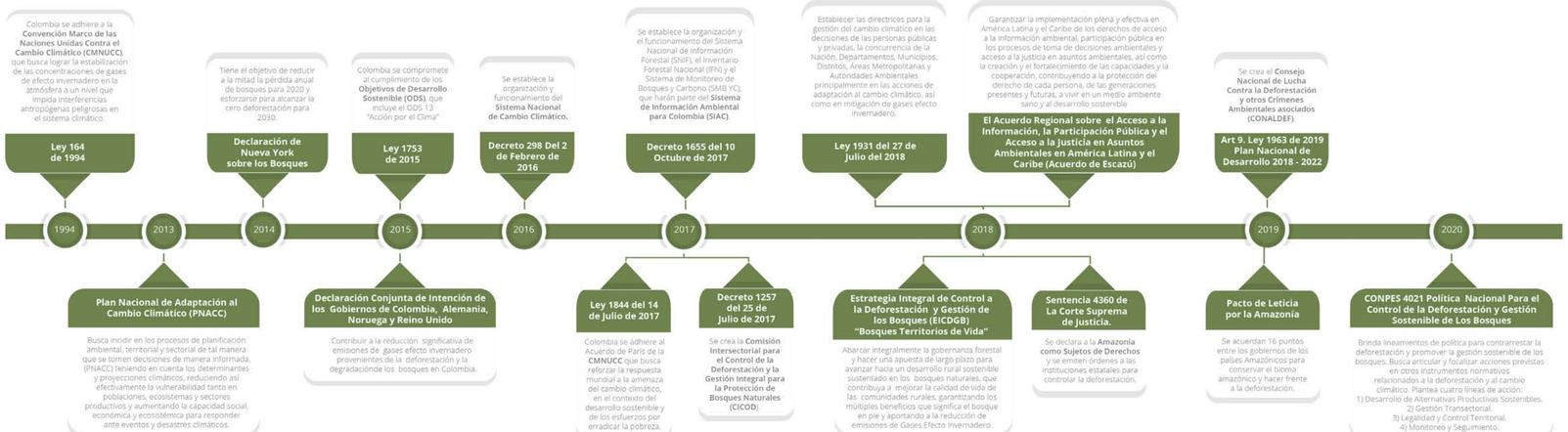


Image 9. Timeline of regulations on deforestation and climate change

5.

How do we defend the forest?
Alternatives for caring for the Amazon

Different actors and in different scenarios (community, social, institutional, and international cooperation) have built and formulated alternatives to face the loss of forest cover and to address the multiplicity of causes and consequences of deforestation, as contributions to manage the socio-environmental conflict. Collective land management categories have been identified in the struggle to stop the expansion of the agricultural frontier and that contribute as a solution to access to land issues; productive systems built from the biophysical characteristics of the Amazon, as well as international cooperation programs that contribute to the strengthening of community-based institutions, environmental governance and productive alternatives of indigenous peasant and Afro-Colombian communities.

These strategies are complementary and their implementation must be done comprehensively, so it is essential to promote spaces for dialogue and inter-agency decision-making with a multiplicity of actors that allow building joint agendas and reaching effective and sustainable agreements over time to stop deforestation permanently. The development of this section focused on the characterization of productive alternatives that reduce the loss of forest and help reduce the tensions of socio-environmental conflicts in the northwestern Amazon region, with the expectation of contributing to the good living of the communities that inhabit the Jungle.

Productive initiatives that care for the forest

The relevance of the production alternatives are identified in the study region, in which the predominant production models in the Amazon are not adequate for the environmental conditions of its ecosystems, and which have generated serious environmental impacts such as soil degradation, loss of land cover, and biodiversity. Despite the potential land use of the Amazon forest, the main production systems that have been established in these ecosystems have been cattle ranching and illicit crops, activities that have become increasingly unsustainable for the region. For this reason, various institutions have formulated suitable alternatives for the sustainability of the communities that inhabit these territories; Nevertheless, these production systems are not being implemented by families, because there have been no processes of community outreach, dissemination of knowledge or technical support. Nor is it clear what are the market opportunities for the products resulting from these economic alternatives.

In this sense, it is becoming increasingly necessary to implement sustainable production alternatives that guarantee the permanence of the communities in the territory while promoting the conservation of these strategic ecosystems. One of the biggest challenges is to understand why, if there are viable production models for the Amazon, is their implementation so difficult with families living in places with the greatest deforestation? Some of the possible answers to this question have to do with difficult access conditions, limited institutional supply, conflicts related to access and use of land, and the armed conflict. In fact, all these conditions imply structural changes are needed in the planning of the Amazon region. Nevertheless, there are examples of efforts that communities have historically made to contribute to the sustainability of productive systems of the region.

In this research, the characterization of the farms of the municipalities of San Vicente del Caguán, La Macarena and Puerto Concordia was carried out. The main results were:

1. Water and the forest are central elements in the organization of family farms. The management of these common goods is regulated through community environmental regulations.

2. Although the main production activities continue to be cattle ranching and coca, some families are committed to product diversification with smaller species, food production and in some cases the transformation of products such as panela and moringa.

3. It was identified that some of the great challenges for crop diversification in the region are marketing, the establishment of fair prices, and technical support and assistance.

4. All families expressed their interest in exploring new alternatives or production management strategies that reduce environmental impacts, contribute to conservation and improve their quality of life; however, these families have not had any type of support or technical assistance in transforming these production systems.

Among the alternatives that have been proposed for the region, four types of production systems were found that contribute to the reduction of deforestation and that are suitable for the biophysical and environmental conditions of the Amazon: agroforestry systems, forest enrichment, silvopastoral systems, and the use of the forest. For these production systems, good rates of return have been estimated for 21 years and its largest investment needs to be made only in the first six years (Sinchi, 2017). Likewise, of the 665 species of useful plants that have been reported for the Colombian Amazon (Arias et al., 2007), 86 species with timber and non-timber forest uses were identified in the departments that make up the northern Amazon (Guaviare, Caquetá, and south of Meta). Among the main uses that are given to these species are cabinetmaking, carpentry, food, and medicinal use depending on the parts of the plant.

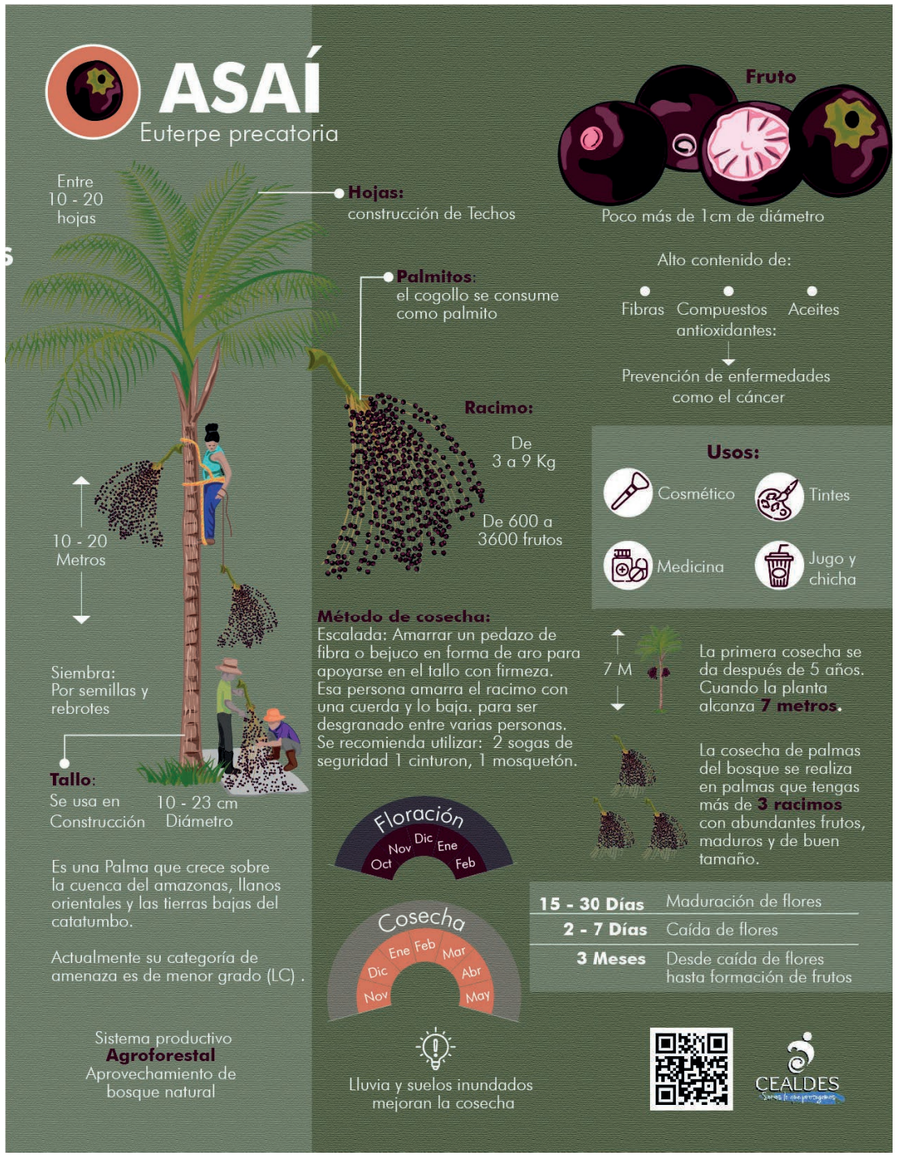
After a search in more than 96 bibliographic resources, a prioritization of 10 species with high potential for commercialization and transformation was carried out taking into account the availability of ecological and commercial information, as well as the potential that different local organizations have identified for its use. To complement this characterization exercise and put some of these alternatives into dialogue with the communities with whom this research was carried out, an exercise was carried out to analyze the value chains and identify potential markets for the prioritized species.

For this, the TAM, SAM, SOM methodology was used due to its versatility in the geographical scope of the analysis with the intention of providing information to the communities to allow them to get to know these alternatives in detail taking into account their local conditions.

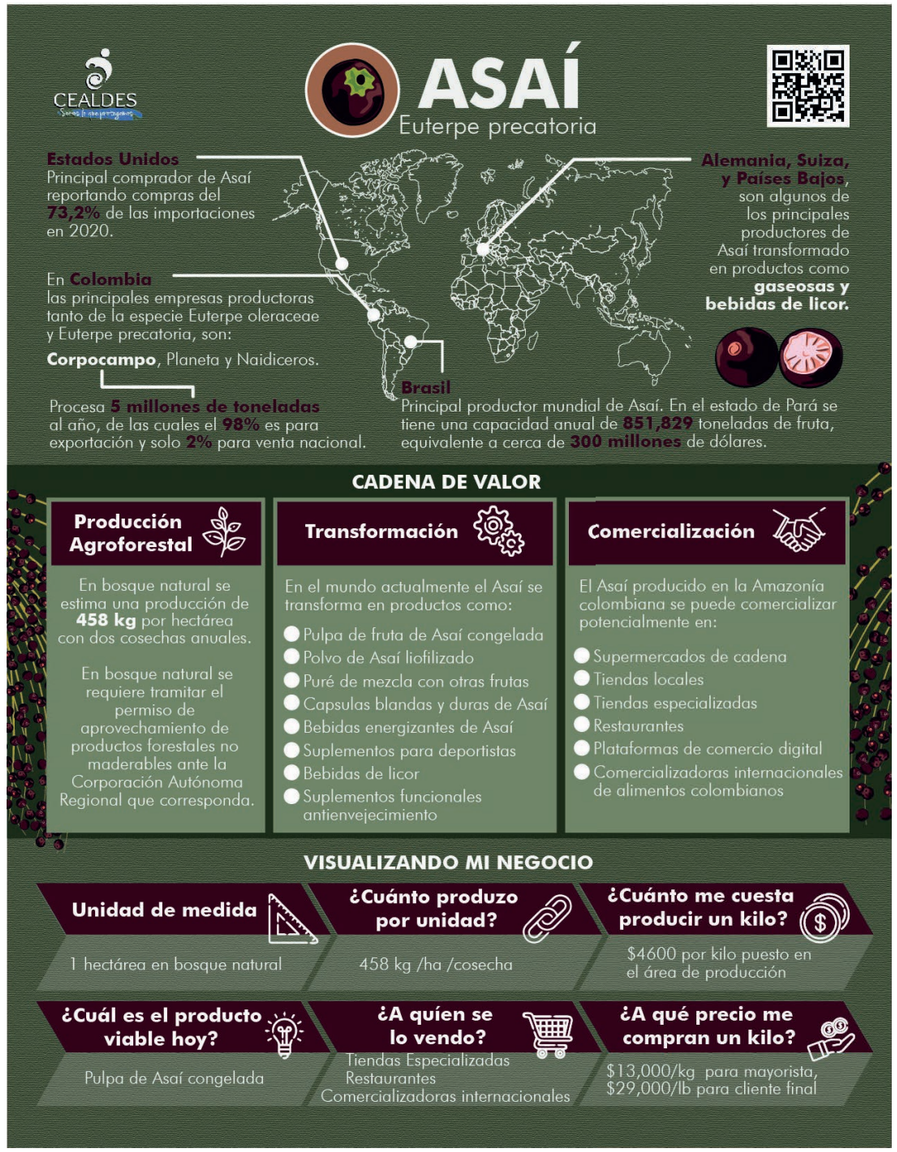
In understanding the social, political, economic, historical, and ecological dynamics of the Amazon, we considered different criteria to delineate productive alternatives: (1) the nature of an alternative has to do with the potential to transform the economic dynamics of the region; (2) they are production systems that transcend bonanzas, that is, they are products that last over time; (3) they contribute to the replacement of illicit economies; (4) diversify the productive systems of the region; and, (5) reduce the impacts that production activities have on common goods (forest cover, water, soil, and biodiversity). These characteristics imply making productive alternatives a substantial part of the regional transformation process, and its success depends on rural development with a territorial focus and on the guarantees of rights for those who want to move towards these alternative productive systems.

It is necessary to close the gap that exists between commercialization, added value, and local production because local communities cannot only be suppliers of raw materials and it is essential to equitably distribute the profits generated by productive activities. On the other hand, it is imperative to guarantee the marketing channels and technical support for the establishment of these initiatives, which implies providing guarantees to families to transform their economies towards productive systems that are based on the sustainable use of biodiversity. It is also strategic to promote Amazonian products that have had sustainable management, which starts from recognizing the products that are consumed, their origin, and benefits.

Finally, the review of regulations for forest use in the Colombian Amazon was carried out based on analysis documents carried out by various authors and from the web pages of each of the corporations. Accessing this information is a challenge for communities when obtaining permits of use. It is important to bear in mind that forest management plans require technical and financial support to be carried out and to initiate the process of exploitation. It is necessary to strengthen the regional Autonomous Corporations to allow for the monitoring of the use of NTFPs and the conservation agreements that are carried out within the framework of the management plans.



Sheet 1. Use of the asaí



Sheet 2. Asaí - Productive sheet

National conservation strategies supported by international cooperation

The context of the implementation of conservation strategies in the northwestern Amazon is characterized by two determining factors: the first is related to the transformations resulting from the Peace Agreement and the reconfiguration of the regional scenario based on the implementation (or not) of the Agreements. , in addition to the gaps and new powers that emerged in the region in the period after the disarmament of the FARC. These factors highlight the importance of thinking about conservation strategies concerning the particularities of the socio-political scenario, which allow us to understand the dynamics of deforestation more granularly. The second factor has to do with the global climate change adaptation and mitigation agendas, which in Colombia take the concrete form of regulations to control deforestation since degradation of forests is directly associated with emission of greenhouse gases, and because these are ***acknowledged*** as important carbon sinks. From these two factors, the context of formulation and implementation of programs and strategies exposed in image 10 is determined.

It is important to recognize the scope and the budgetary and political limitations of projects that fight deforestation while financed with resources from international cooperation. Despite the significant resources invested and the various projects implemented in recent years, deforestation as a structural and multi-causal phenomenon transcends these capacities; Furthermore, the timing of cooperation projects should not replace the comprehensive action required from the state to guarantee rights and protect nature. It is therefore recommended that projects that fight deforestation, beyond their specific goals and objectives, seek, on the one hand, to influence public policy from the learning of the implementation of action and, on the other hand, support the strengthening of community-based organizations so that they can build policy agendas to influence the dynamics of deforestation in the short, medium and long term, and manage to open spaces for dialogue and consultation with State institutions to manage the socio-environmental conflicts associated with it.

As international cooperation is a relevant part of the financing of environmental public policy, more effective mechanisms of accountability decision-making and clarity in the support and agreements that are signed at the government level should be considered to generate more honest dialogues and transparency that build trust in rural communities. It is necessary to clarify through cooperation which strategies are financed, which objectives are prioritized, and which are the goals and expected outcomes.

Projects fighting deforestation must recognize and work together with local community institutions (Jaramillo, Castro, Ortiz, 2018). Some projects, such as Visión Amazonía / Amazonia and Sustainable Local Development, have prioritized individual conservation, restoration, and non-deforestation agreements directly with peasant families, but without reaching collective agreements with community-based institutionality. This has led to tensions in the local organizational fabric and difficulties in meeting the "No deforestation" goals. For future actions, it is recommended that projects against deforestation develop a much more coordinated work with social organizations in the phases of formulation, implementation, monitoring, and evaluation of the projects. In this regard, the Environments for Peace program provides fundamental lessons, since its design and implementation were directly articulated with the organizations of peasant communities.

Some programs and projects to control deforestation, such as *Visión Amazonía* and *Ambientes para la Paz*, have implemented actions under a scheme of direct execution of resources with peasant organizations. This has meant an organizational and administrative strengthening for these organizations in project management, which is articulated with the agendas of community-based institutions. It is recommended that all programs and projects fighting deforestation continue to carry out the implementation of resources with local organizations to achieve greater local ownership and sustainability of the project whilst strengthening the management capacity of the communities. It is also necessary to propose Community-based mechanisms for the monitoring and control of resources so that their implementation is carried out in the most appropriate way possible.

Programs and projects implemented with resources from international cooperation have had a very pronounced emphasis on working with communities, particularly peasant farmers. Such is the case of programs such as Vision Amazon, which invests a good part of its resources in the Agro-environmental Pillar. On some occasions, this can lead to the assumption that these communities are the main agents responsible for the phenomenon of deforestation. However, the results obtained confirm that these actions fail to account for the decrease in the deforestation rate since the main causes and agents remain outside the focus of the programs. It is recommended that, in conjunction with the communities, international cooperation programmes invest greater resources in researching the drivers and agents of deforestation in addition to providing technical and financial support to State institutions in order to deactivate them.

ESTRATEGIAS NACIONALES INSTITUCIONALES

En la se exponen las estrategias que Colombia ha implementado para la reducción de la deforestación. En donde se resaltan la resolución 247 de 2007, el acuerdo cero deforestación Tropical Forest Alliance y la Estrategia Nacional de Reducción de Emisiones por Deforestación y Degradación Forestal REDD +, como programa que enmarca "Visión Amazonía".

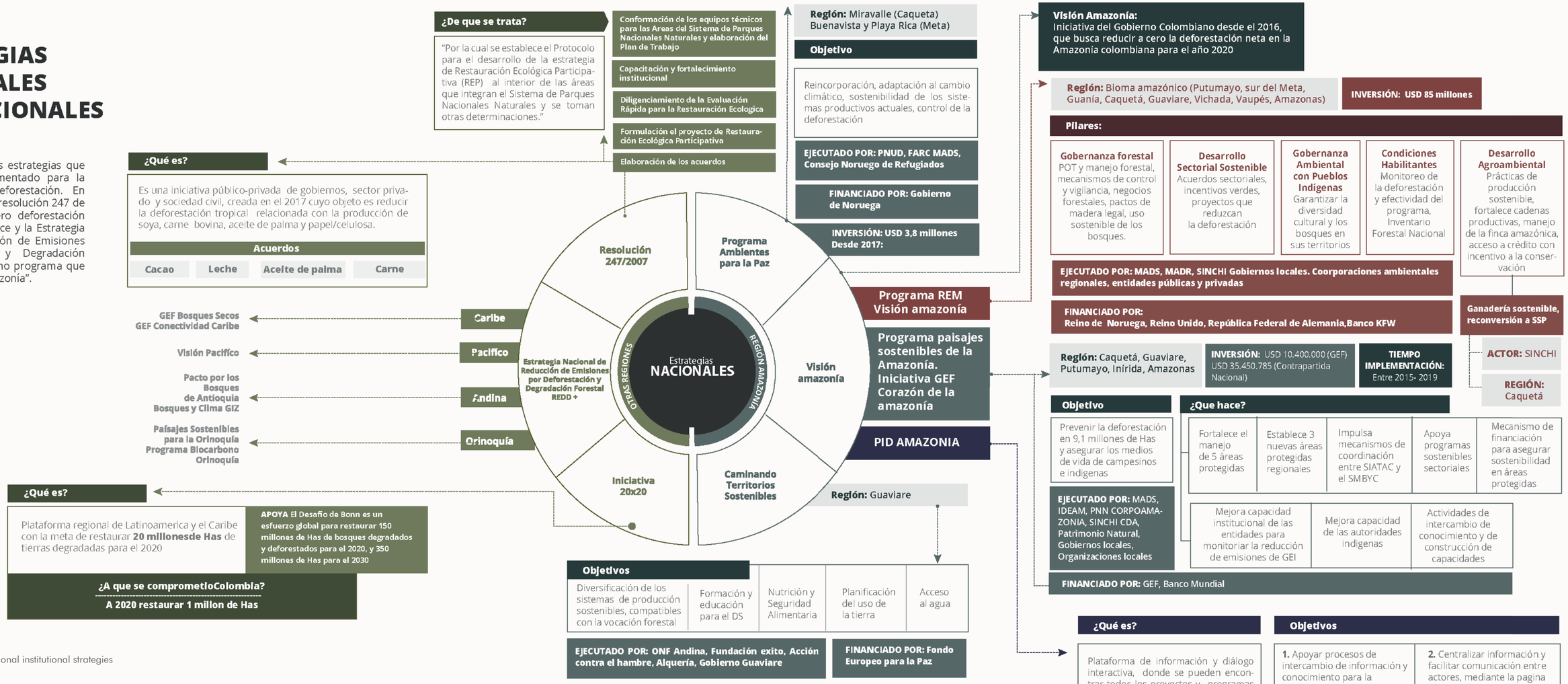


Image 10. National institutional strategies

Because deforestation is a multi-agent and multi-causal phenomenon, deforestation control projects must promote spaces of territorial governance, where multiple communitarian, economic, state, and cooperation actors related to the dynamics of deforestation and initiatives to contain it can generate dialogues and articulation of joint actions to respond to deforestation in a much more comprehensive way. In this regard, the forestry roundtables supported by the Visión Amazonía program in its pillar 1. Forest Governance, the governance scheme, and Shared Vision Agreements of the Environments for Peace program outline important learnings in terms of multi-agency dialogue spaces for containing deforestation. Nevertheless, some economic actors associated with the dynamics of deforestation via land grabbing and speculation have been absent from these spaces, despite the great responsibility they have in increasing deforestation rates. It is recommended that future initiatives can continue to promote territorial governance and multi-agency dialogues, recognizing the challenges and potential difficulties to dialogue with all stakeholders would entail, particularly those linked to land grabbing and land speculation.

Categories of land use planning

This section makes an approximate analysis of collective property territorial planning categories such as the Indigenous Reservations, the Black Community Councils, and the Peasant Reserve Zones. This is to analyze other types of territorial planning, adopted for the guarantee and enjoyment of nature and territory by communities of special cultural and social interest, in light of the different categories of management of protected areas in the country.

Colombia has 52% of Colombia´s continental territory is covered by forests, of which 53.4% are in collective territories, of which 46.1% correspond to indigenous reservations, 7.3% to territories of black or Afro-Colombian communities, 1.9% are in Peasant Reserve Zones, and 15, 58% are part of SINAP (IDEAM, 2017 cited in MADS Resolution 1196 of 2018). Authors such as Hayes (2006) and Bonilla and Higuera (2016), who have analyzed the effectiveness of protected areas for the protection of forests in Colombia and other countries, have agreed that in areas not protected but that are managed under schemes of community forest governance, many more rules and agreements are established regarding the use of the forest, which has resulted in areas with fewer levels of deforestation compared to PAs such as Parks. This is relevant to understand the complex deforestation scenario and the effectiveness of strict conservation PAs, versus conservation PAs with productive activities, as is the case of DMI or RNSC, versus collective territories, which have shown an important degree of efficiency in the conservation of forests, based on productive and cultural systems that become an opportunity to stop deforestation. Added to this Scenario is the appearance of new territorialities of armed actors in the Amazon and in general throughout the country, which directly and indirectly affects the dynamics of new waves of colonization and thereby stimulate the expansion of the agricultural frontier, illicitly used crops, livestock, and land-grabbing in the buffer zones of the PNNs, such as collective territories and within the PNNs and other PAs. Consequently, it is key to investigate these factors and processes at a local scale of detail, to understand and identify the variables that make a given AP more or less effective than a collective territory when facing deforestation.

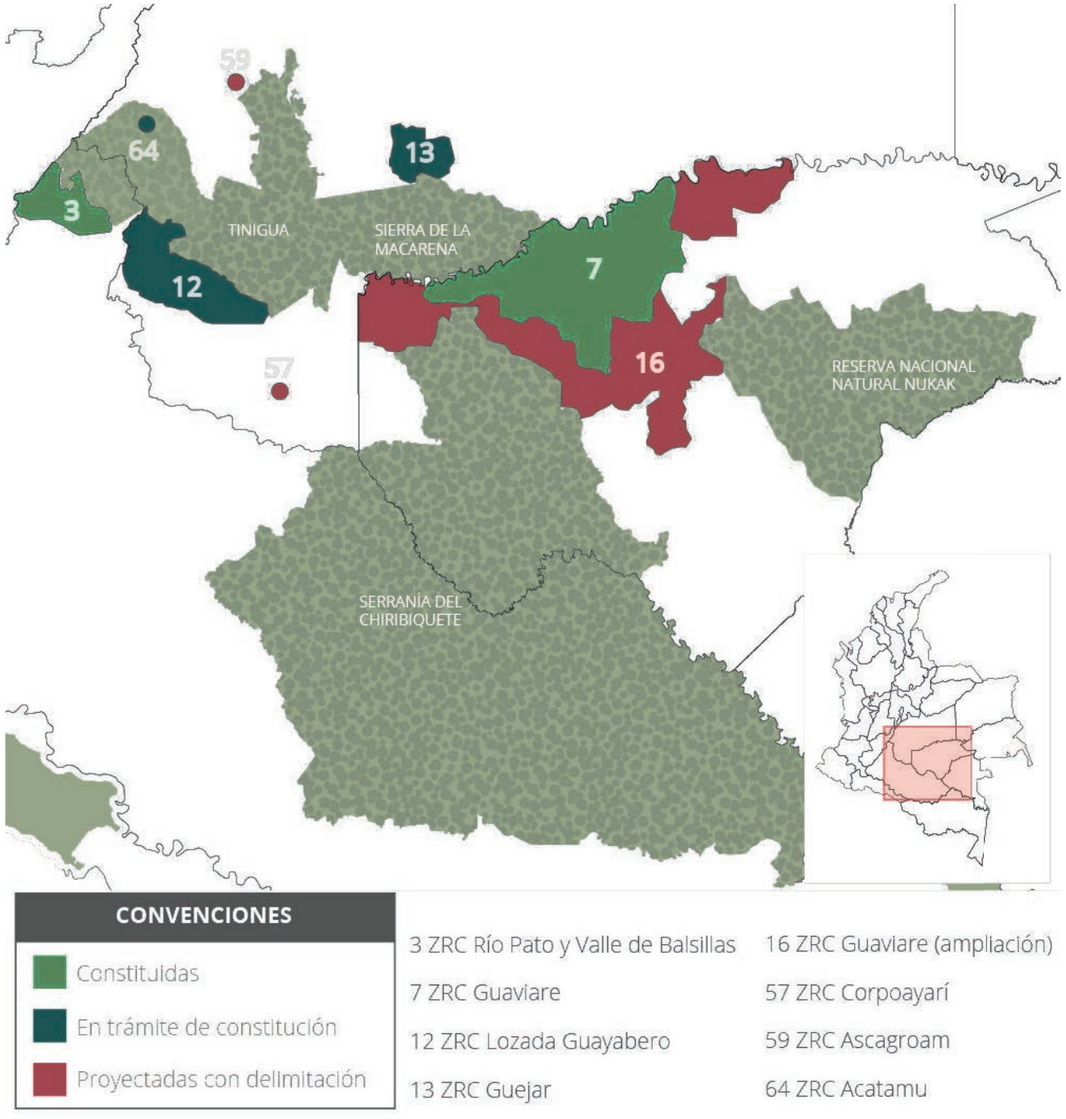


Image 11. Peasant Reserve Zones

Conclusions

6.

To explain deforestation in the northwestern Amazon region, it is necessary to recognize the changes in the roles of key actors in the configuration of regional socio-ecological relationships. The arrival of new investors, allied with local elites and armed groups, mobilizes capital that stimulates the political economy of deforestation. Finally, the social organizations of the territory, who had high expectations during the first phase of implementation of the Peace Agreement, today face tensions with institutions, armed groups, and among the communities due to a coercive and prohibitive approach prioritized by the State.

The state approach towards deforestation in recent years has been that of national security, which has resulted in strategies such as "Environmental Bubbles" and more recently the initiatives proposed by the "National Council to Combat Deforestation and other environmental crimes", it makes regional tensions much more complex. The connection of the aforementioned approaches with strategies related to the "fight against drugs" and/or counterinsurgency increases multi-stakeholder conflicts and offers few results regarding forest conservation. For this reason, the implementation of state intervention devices in the name of securitization and not as a solution to the structural causes of deforestation, is generating new cycles of violence which always ends up increasing deforestation.

This is a first proposal that is neither final nor static. In this sense, it is thought to delve into the characterization and typologization of the actors that are part of the process of land grabbing in the particular case of the department of Guaviare, since it can be useful not only in terms of research, but to generate negotiation processes between actors such as the communities, new landowners, and the authorities to prevent the agricultural frontier from continuing to expand.

The northern Amazon region is the confluence area of the Andes, the Orinoquia, and the Amazon; there are the *Sabanas del Yarí*, an enclave of the Orinoquia in the middle of the jungle which generates genetic exchange between the Andes and the Amazon. At this confluence, any disturbance of these forests will have serious consequences on the hydrological cycle, on the soils, and the regional climate. Predictions about the consequences of climate change in the Amazon are related to changes in seasonality that increase the duration and severity of both the dry and the rainy seasons generating river overflow and therefore eventual flooding.

The greatest effects of this situation will be experienced by the local communities since it will directly affect the sustainability and viability of established productive systems; indeed, they are going to soon be facing big losses if they are unable to adapt to these new conditions. As mentioned in this report, it is the indigenous, peasant, and Afro communities experiencing the impacts of the implementation of conservation policies on their daily lives, and who are excluded from the decision-making process. In this context, the alternatives that were outlined have the objective of reducing the tensions generated by the phenomenon of deforestation, both in the communities and the forests. However, these alternatives must be implemented in a participatory and comprehensive manner that seeks actions on different but complementary approaches to tackle deforestation. Among them, guaranteed access to land, the stabilization of the peasant economy, the design and implementation of productive systems suitable for the biophysical conditions of the Amazon region, the stimulation of products that have a sustainable and profitable insertion in the market, and the generation of political agreements that provide solutions to the communities that inhabit the protected areas. These strategies must be led by the communities hand in hand with international cooperation and robust, competent state institutions that are open to genuine and effective dialogue with community-based institutionality.

Bibliographic references

Acevedo - Osorio, Á., Waeger, J. K., & Willington, O. (2019). Fondos autogestionados para la transición agroecológica: el caso de ASPROINCA, Riosucio, Caldas. La agroecología. Experiencias comunitarias para la Agricultura Familiar en Colombia, 179 - 200.

Altieri, M. A. (1995). El" estado del arte" de la agroecología y su contribución al desarrollo rural en América Latina. Paper presented at the Agricultura y desarrollo sostenible.

Amazon Conservation Team. (2020). Legalizando territorios indígenas en Colombia. Avances en la consolidación de territorios bioculturales. Obtenido de https://www.amazonteam.org/maps/colombia-land-rights/es/index.html

Andrade G. I., M. E. Chaves, G. Corzo y C. Tapia (eds.). 2018. Transiciones socioecológicas hacia la sostenibilidad. Gestión de la biodiversidad en los procesos de cambio en el territorio continental colombiano. Primera aproximación. Bogotá: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. 220 p.

Andrade, G. (2009). ¿El fin de la frontera? Reflexiones desde el caso colombiano para una nueva construcción social de la naturaleza protegida. Revista de Estudios Sociales No. 32: 48-59.
Angelsen, A., Martius, C., Sy, V. D., Duchelle, A. E., Larson, A. M., & Thuy, P. T. (2019). REDD+: la transformación.
Lecciones y nuevas direcciones (CIFOR ed., pp. 338). Bogor, Indonesia: Centro para la Investigación Forestal Internacional (CIFOR).

ANT. (31 de Agosto de 2020). Consejos Comunitarios Negros. Obtenido de https://data-agenciadetierras.opendata.arcgis.com/datasets/4f602976504c43ce86c470cac0443e8b

Arias, J., y Cárdenas, D. (2007) Manual de identificación, selección y evaluación de oferta de productos forestales no maderables. Instituto Amazónico de Investigaciones Científicas-Sinchi. Bogotá, Colombia

Armenteras, D. 2018. Causas de degradación forestal en Colombia: una primera aproximación. Bogotá: Universidad Nacional-IDEAM

Barrera, J. Hernández, M. Carrillo, M. Bardales, X. Alvarez, A. Bucheli, P. 2007. La Cadena Productiva del ají en el departamento de vaupés: una alternativa sostenible. Bogotá, Colombia. Instituto Amazónico de investigaciones científicas Sinchi
Borras, S.M. & Edelman, M. (2016). Political dynamics of transnational agrarian movements. Nova Scotia: Fernwood Publishing.

Borras, S.M, jr, Kay, C, Gómez, S, & Wilkinson, J. (2013). Acaparamiento De Tierras Y Acumulación Global Capitalista: Aspectos Clave En América Latina. Eutopía - Revista de Desarrollo Económico Territorial, 4. https://doi.org/10.17141/eutopia.4.2013.1229

Bermúdez, H. (2016). La Zona de Reserva Campesina del Guaviare - ZRC: Dificultades para garantizar el acceso a la tierra y mejorar las condiciones de vida de los colonos campesinos. Bogotá, D.C.: Pontificia Universidad Javeriana, Facultad de Ciencias Políticas y Relaciones Internacionales.

Bonilla, L., & Higuera, I. (Octubre de 2016). ¿Parques de papel? Áreas protegidas y deforestación en Colombia. Documentos de trabajo sobre economía regional (248), 1-53. Obtenido de Banco de la República: https://www.banrep.gov.co/es/dtser-248

Caicedo, L (2020). Antropología Jurídica, costumbre y pluralismo jurídico: Una mirada a la sentencia que reconoció a la Amazonía como sujeto de derechos en Colombia. Universidad de los Andes.

Calle, M. C. (2020, 18 de noviembre). ¿Cambia el escenario ambiental en Latinoamérica con la llegada de Joe Biden a la presidencia de Estados Unidos? Mongabay Latam. https://es.mongabay.com/2020/11/joe-biden-medio-ambiente-y-cambio-climatico-latinoamerica/

Camacho A., Lara I., Guerrero R. D. (2017). Interpretación Nacional de las Salvaguardas Sociales y Ambientales para REDD+ en Colombia. MADS, WWF Colombia, ONU REDD Colombia. Bogotá-Colombia

Carrera, F. (2018). Autoevaluación de las concesiones forestales en el Guatemala (pp. 80). Costa Rica: Centro Agronómico Tropical de Investigación y Enseñanza – CATIE

Carrera, F., Boscolo, M., & Linhares, T. (s.f.). Manejo forestal como estrategia de conservación y desarrollo: El caso de las concesiones forestales en Guatemala (pp. 12): Forestry Policy and Resources Division, FAO.

Carrillo, S. L. (2016). ¡Juntos pero no revueltos! O de cómo se ha concertado la regulación social en medio de la
guerra. El caso de la región de El Pato, San Vicente del Cagüan, Colombia. 1956-2016. . México: El Colegio de
Michoacán-Centro de Estudios Rurales.

Carrillo, M. Cardona, J. Barrera, J. Hernández, M. Colombia: Frutas de la amazonia colombiana. 2016. Instituto Amazónico de Investigaciones Cientificas Sinchi. Bogotá.
Carrillo, L. (2017). Informe final Carta Acuerdo FAO-ANZORC. Documento final de análisis de los procesos de poblamiento 5 Parques Nacionales Naturales, 192-320.

Carvajal, S (2016) Nuevas miradas sobre el control de la tierra: acaparamiento de tierras en Colombia. Tesis de pregrado. Universidad de los Andes.
Casasola, F., Ibrahim, M., Sepúlveda, C., Ríos, N., & Tobar, D. (2009). Implementación de sistemas silvopastoriles y el pago de servicios ambientales en Esparza, Costa Rica: una herramienta para la adaptación al cambio climático en fincas ganaderas. Políticas y sistemas de incentivos para el fomento y adopción de buenas prácticas agrícolas, 169.

Castro, S. Barrera, J. Carrillo, M. Hernández, M. 2015. Asaí (Euterpe precatoria) Cadena de valor en el sur de la región Amazónica. Instituto Amazónico de investigación científica Sinchi.

Centro de Pensamiento y Diálogo Político. (2020). Estado General de la Implementación del Acuerdo de Paz en Colombia. Bogotá: Gentes del Común.

Chagoya, J. L., & Gutiérrez, L. I. (2009). Esquema de pago por servicios ambientales de la Comisión Nacional Forestal, México. Políticas y sistemas de incentivos para el fomento y adopción de buenas prácticas agrícolas, 189. CMNUCC, 2015. Acuerdo de París. Disponible en:
https:// unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_spanish_.pdf
Clerici, N., Armenteras, D., Kareiva, P., Botero, R., Ramírez-Delgado, J., Forero-Medina, G., . . . Biggs, D. (18 de Marzo de 2020). Deforestation in Colombian protected areas increased during post-conflict periods. Obtenido de Scientific Reports: https://www.nature.com/articles/s41598-020-61861-y

Colombia, C. d. (1994, agosto 3). Secretaria del Senado. Récupéré sur http://www.secretariasenado.gov.co/ senado/basedoc/ley_0160_1994.html

Comando General Fuerzas Militares de Colombia (2012). Plan Estratégico Militar. Bogotá. Recuperado de: https://www.fac.mil.co/sites/default/files/plan_estrategico_militar_2030.pdf
Comando General Fuerzas Militares de Colombia (2020). Más de 248 hectáreas recuperadas tras Sexta Fase de la Campaña Artemisa en La Macarena. Recuperado de https://www.cgfm.mil.co/es/blog/mas-de-248-hectareas-recuperadas-tras-sexta-fase-de-la-campana-artemisa-en-la-macarena

Comando General Fuerzas Militares de Colombia (2019). Recuperadas 1.558 hectáreas de Parques Naturales. Recuperado de https://www.cgfm.mil.co/es/blog/recuperadas-1558-hectareas-de-parques-naturales

Comisión Colombiana de Juristas. (2019). de Arrasar y desplazar para conservar: Informe de la comisión de verificación sobre hecho ocurridos en el sector de Cachicamo, San José del Guaviare.

Congreso de la República de Colombia (2019). Ley 1955 de 2019. Recuperado de http://www.suinjuriscol.gov.co/viewDocument.asp?ruta=Leyes/30036488#:~:text=El%20Plan%20Nacional%20de%20Desarrollo%202018%2D2022%20%E2%80%9CPacto%20por%20Colombia,concordancia%20con%20un%20proyecto%20de (fecha de obtención)

Congreso de la República de Colombia. (1917). Ley 71 de 1917. Recuperado de http://www.suinjuriscol.gov.co/viewDocument.asp?id=1620581#:~:text=Art%C3%ADculo%201%C2%BA%20Toda%20persona%20que,%2C%20arroz%2C%20etc.%2C%20en (fecha de obtención).

Congreso de la República de Colombia. (1931). Ley 93 de 1931. Recuperado de http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Leyes/1632255 (fecha de obtención)

Congreso de la República de Colombia. (1959). Ley 2 de 1959. Recuperado de http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Leyes/1556842 (fecha de obtención)

Consejo Nacional de Política Económica y Social (Conpes). (21 de Julio de 2010). Documento Conpes 3680. Obtenido de Dirección Nacional de Planeación (DNP): https://www.dnp.gov.co/CONPES/documentos-conpes/Paginas/documentos-conpes.aspx#Default={%22k%22:%22ConpesNumero:3680%20OR%20Title:3680%22}

Convenio de Diversidad Biológica. (s.d.). Plan Estratégico para la Diversidad Biológica 2011-2020 y las Metas Aichi. Récupéré sur www.cbd.int: https://www.cbd.int/ doc/strategic-plan/2011-2020/Aichi-Targets-ES.pdf

Counter, M (2019) In Good Faith: Land Grabbing, Legal Dispossession, and Land Restitution in Colombia Journal of Latin American Geography, Volume 18, Number 1, March 2019, pp. 169-192.

Coronado, S. (2012). Bosques y derechos: reflexiones sobre el acceso y gobierno de las comunidades locales sobre los recursos forestales. Bogotá: Universidad Nacional de Colombia.

Crespo P. 2003. La Guayusa Trayectoria y Sentido Documento sistematización de experiencias. Programa de Manejo Forestal Sostenible en la Región Andina, Instituto Interamericano de Cooperación para la Agricultura. Ministerio de asuntos exteriores de Finlandia.

Cuesta, J., & Hinestroza, L. (2017). Análisis jurídico de las funciones de los concejos comunitarios en territorios colectivos de comunidades negras. Justicia, 160-181

Decreto 1076. (26 de Mayo de 2015). Esta versión incorpora las modificaciones introducidas al Decreto Único Reglamentario del Sector Ambiente y Desarrollo Sostenible a partir de la fecha de su expedición. Obtenido de Función Pública: https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=78153

Decreto 2372. (01 de Julio de 2010). Por el cual se reglamenta el Decreto-ley 2811 de 1974, la Ley 99 de 1993, la Ley 165 de 1994 y el Decreto-ley 216 de 2003, en relación con el Sistema Nacional de Áreas Protegidas, las categorías de manejo que lo conforman y se dictan otras disposiciones. Obtenido de Sistema Único de Información Normativa-MinDefensa: http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Decretos/1872443#:~:text=DECRETO%202372%20DE%202010&text=(julio%2001)-,por%20el%20cual%20se%20reglamenta%20el%20Decreto%2Dley%202811%20de,y%20se%20dictan%20otras%20disposiciones.

Decreto 2811. (18 de Diciembre de 1974). Por el cual se dicta el Código Nacional de Recursos Naturales Renovables y de Protección. Obtenido de Ministerio de Ambiente: https://www.minambiente.gov.co/images/GestionIntegraldelRecursoHidrico/pdf/normativa/Decreto_2811_de_1974.pdf

Dejusticia. (2017). Campesinado insiste ante la Corte Suprema de Justicia en ser contado en el Censo 2018. Obtenido de: https://www.dejusticia.org/campesinos-apelan-fallo-de-tutela-que-reconoce-la-importancia-de-contarlos-pero-no-obliga-al-dane-cambiar-el-formulario-del-censo-2018/

Dejusticia. (2018). Presentamos primera tutela sobre cambio climático y generaciones futuras en América Latina. Obtenido de: https://www.dejusticia.org/esta-es-la-primera-tutela-sobre-cambio-climatico-que-se-presenta-en-america-latina/.

Dejusticia. (23 de octubre de 2019). Así van las audiencias del #JuicioALaDeforestación: Gobierno sigue incumpliéndole a la Amazonía. Obtenido de: https://www.dejusticia.org/asi-van-las-audiencias-del-juicioaladeforestacion-gobierno-sigue-incumpliendole-a-la-amazonia

Dejusticia, Comisión Colombiana de Juristas y Clínica de Medio Ambiente y Salud. (2020). Informe de seguimiento al cumplimiento de la sentencia STC 4360 de 2018 de la Corte Suprema de Justicia del grupo de 25 niños, niñas y jóvenes accionantes; y de las organizaciones de la sociedad civil. Bogotá.

Del Cairo, C. (2009). Cultura y Región en la Amazonia colombiana: Mosaico de algunas imágenes sobre sus territorios y pobladores. En: Regiones y territorios en América Latina. Un debate abierto sobre sus procesos de cambio. México: Plaza y Valdez, p.p (-)

Del Cairo, C. (2012). Environmentalizing Indigeneity: A Comparative Ethnography on. Multiculturalism, Ethnic Hierarchies and Political Ecology in the Colombian Amazon, School of Anthropology. University of Arizona, Tucson.

Del Cairo, C., & Montenegro-Perini, I. (2015). Espacios, campesinos y subjetividades ambientales en el Guaviare. Memoria y Sociedad, 19(39), 49-71.

De la Torre, Augusto; Fajnzylber, Pablo; Nash, Jhon. (2009). Desarrollo con menos carbono, respuestas latinoamericanas al desafío del cambio climático. Washington: Banco Mundial, pp 92

Del Valle, E. (2017). El Área de Manejo Especial de La Macarena y la ausencia de derechos adquiridos. En M. García Pachón, Medio Ambiente y ordenación del territorio (págs. 275-315.). Obtenido de https://bdigital.uexternado.edu.co/bitstream/001/2357/1/MKA-spa-2017-El_area_de_manejo_especial_de_La_Macarena_y_la_ausencia_de_derechos_adquiridos

Delegación de la Unión Europea en Colombia. (2019). Contrato de Reforma Sectorial para el Desarrollo Local Sostenible.

Devine, J. (2014). Counterinsurgency ecotourism in Guatemala's Maya biosphere reserve. Environment and Planning D: Society and Space, 32(6), 984-1001.

Devine, J. (2014). Counterinsurgency ecotourism in Guatemala's Maya Biosphere Reserve. Environment and Planning D: Society and Space. Volume 32: 984-1001.

Devine, J. A. (2018). Community forest concessionaires: resisting green grabs and producing political subjects in Guatemala. The Journal of Peasant Studies, 45(3), 565-584.

Departamento Nacional de Planeación, Ministerio de Ambiente y Desarrollo Sostenible (MADS), Ministerio de Comercio, Industria y Turismo, Ministerio de Agricultura y Desarrollo Rural, Colciencias y Fondo Biocomercio Colombia. (2014). Programa Nacional de Biocomercio Sostenible (2014—2024).

Dionisio, S., & Alliance, R. (2019). Conservación y desarrollo basado en la comunidad: las concesiones forestales comunitarias en Petén, Guatemala. Revista Mesoamericana de Biodiversidad y Cambio Climático, 3(5), 52-60.

Das & Poole. (2004). Anthropology in the margins of the state.
Del Cairo, C y Montenegro-Perini, I. (2014) Espacios, campesinos y subjetividades ambientales en el Guaviare». Memoria y Sociedad 19, n.° 39 (2015): 49-71. http://dx.doi.org/10.11144/Javeriana.mys19-39.ecsa
DNP (2020) Documento Conpes 4021. Política Nacional para el Control de la Deforestación y la gestión sostenible de los bosques.

Echevarría, H. (1995). Para superar los conflictos sociales y el subdesarrollo: Es imperativo grabar la tierra. Ciencia política: Revista trimestral para América Latina y España, (39), 21-38.

El Tiempo (25 de junio de 2019). Los territorios colectivos, ¿la clave para frenar la deforestación? Obtenido de https://www.eltiempo.com/vida/medio-ambiente/deforestacion-en-colombia-territorios-colectivos-para-frenarla-379204

El Tiempo. (2020). Obtenido de ¿Es efectiva la Operación Artemisa en la protección ambiental?: Acceso https://www.eltiempo.com/vida/medio-ambiente/noticias-deforestacion-es-efectiva-la-operacion-artemisa-en-la-proteccion-ambiental-538281 (Fecha de acceso)

Elías, S., & Monterroso, I. (2014). La lucha por los derechos territoriales para las comunidades rurales: La experiencia de ACOFOP en la Reserva de la Biósfera Maya, Petén. San Salvador: Prisma. Recuperado de http:// www. rightsandresources. org/wp-content/uploads/la_lucha_por_los_drechos_territoriales_para_las_comunidades_rurales_ACOF. pdf.

Estenssoro, F. (2012). Crisis ambiental y cambio climático en la política global: un tema crecientemente complejo en América Latina. Revista Universum. N.° 25 (2), 57-77.

Fajardo, D. (1999). Colombia: reforma agraria en la solución de conflictos armados. América latina hoy: Revista de ciencias sociales, pp 45-59.

Fajardo, Darío (2017). "Ruta del Acuerdo Agrario". En: Darío Fajardo y Henry Salgado: El Acuerdo Agrario. Bogotá: Ediciones Aurora, pp. 11-36.

FAO. (2018). Las zonas de reserva campesina: retos y experiencias significativas en su implementación: aportes para una adecuada aplicación de la ley 160 de 1994, la reforma rural integral y las Directrices Voluntarias para la Gobernanza Responsable de la Tenencia.

FAO. 2009. La agricultura mundial en la perspectiva del año 2050. Foro de expertos de alto nivel. Como alimentar al mundo 2050. Roma. 4 p.

FAO. (2018). Las Zonas de Reserva Campesina: Retos y experiencias significativas en su implementación: aportes para una adecuada aplicación de la Ley 160 de 1994, la Reforma Rural Integral y las Directrices Voluntarias para la Gobernanza Responsable de la Tenencia. Bogotá.

Faria, N., Moreno, M., & Nobre, M. (2015). Las mujeres en la construcción de la economía solidaria y la agroecología: San Pablo, SOF Sempreviva Organização Feminista

FDCS. (2020). Análisis de drivers de deforestación y pérdida de biodiversidad . Análisis multitemporal de pérdida de biodiversidad en el departamento del Guaviare. USAID.

Finzi, G. (2017). El caso de Poligrow en Mapiripán, Meta: entre acaparamiento (ilegal) de tierras y capitalismo verde. Ciencia Política, 12(24), 21-50.

Francis, J. 1993 Jagua, Genipa, Genipa americana. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. New Orleans.

Franco, F. (2006). La Corporación Araracuara y la colonización científica de las selvas ecuatoriales colombianas. Colombia Amazónica, edición especial, 13-34.

Fuerzas Militares de Colombia. (2020). Quinta fase Operación Artemisa. Obtenido de https://www.youtube.com/watch?v=2iHMOT0I8WY&t=11s

Fundación Ideas para la Paz. (2011). Plan de Consolidación Integral de la Macarena. Bogotá.
Fundación Ideas para la Paz. (2020). Fuerzas militares y la protección del ambiente. Roles, riesgos y oportunidades. Bogotá.

Garavito, C., & Franco, D, & Crane, H. (2017). La paz ambiental: retos y propuestas para el posacuerdo. Bogotá: Dejusticia.

Giraldo, B; Zubieta, M; Vargas, G & Barrera, J (2014) Bases técnicas para el desarrollo forestal en el departamento de Guaviare, Amazonia Colombiana. Instituto Sinchi.

Geist, H. & E. Lambin. 2002. Proximate causes and underlying driving forces of tropical deforestation. BioScience. Volumen 52 n° 2 pp 143-150

Global Carbon Atlas. Obtenido de: http://www.globalcarbonatlas.org/es/CO2-emissions.
Gobierno de Colombia. (2015). Visión Amazonía. Bogotá.

Gobierno de Colombia. (2018). Bosques territorios de vida: estrategia integral de gestión de control a la deforestación y gestión del Bosque. Bogotá.

Gobierno de Colombia. (2020). Actualización de la Contribución Determinada a Nivel Nacional

González, D.V. 2003. Los Productos Naturales No Maderables (PNNM): Estado del arte de la investigación y otros aspectos. Biocomercio Sostenible, Instituto de Investigación de Recursos Biológicos "Alexander von Humboldt". Bogotá,

Gonzáles, A. Torres, G. 2010. Manual Cultivo de Metohuayo Caryodendron orinocense Karst. Instituto de investigación de la amazonía Peruana- IIAP.

Gudynas, E. (19 de febrero de 2019). ¿Se militariza la gestión ambiental y territorial? Obtenido de https://www.pidamazonia.com/content/%C2%BFse-militariza-la-gestion-ambiental-y-territorial

Grajales, J (2020): Losing land in times of peace: post-war agrarian capitalism in Colombia and Côte d'Ivoire, The Journal of Peasant Studies To link to this article: https://doi.org/10.1080/03066150.2019.1691535

Giraldo, O. (2015). Acaparamiento de tierras en Colombia en Biodiversidad No 85 (3)

Grajales,J (2020): A land full of opportunities? Agrarian frontiers, policy narratives and the political economy of peace in Colombia, Third World Quarterly, DOI: 10.1080/01436597.2020.1743173

Gras, C y Cáceres, D (2017) El acaparamiento de tierras como proceso dinámico. Las estrategias de los actores en contextos de estancamiento económico. Población & Sociedad [en línea], Vol. 24 (2), 2017, pp. 163-194. http://www.poblacionysociedad.org.ar/archivos/24/P&S-V24-N2- Gras-Caceres.pdf

Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "High-Resolution Global Maps of 21st-Century Forest Cover Change." Science 342 (15 November): 850–53. Data available from: earthenginepartners.appspot.com/science-2013-global-forest.

Hayes, T. M. (2006). Parks, People, and Forest Protection: An institutional assessment of the effectiveness of protected areas. World Development, 34(12), 2064-2075. doi:https://doi.org/10.1016/j.worlddev.2006.03.002

Hein, J., Del Cairo, C., Ortiz. D, Vergara, T., Velez, J., & Rodríguez J. (2020). A political ecology of green territorialization: frontier expansion and conservation in the Colombian Amazon. DIE ERDE – Journal of the Geographical Society of Berlin, 151, 37-57.

Hernández, M. Barrera, j. 2004. Aspectos biológicos de conservación de frutas promisorias de la amazonia colombiana. Instituto Amazónico de investigaciones Científicas Sinchi. Universidad de la Amazonia. 2004
Hernández, M. Barrera, J. Carrillo, M. 2006. Araza (Eugenia stipitata McVaugh) Fisiología. Instituto Amazónico de investigaciones científicas, SINCHI.

Hernandez. Melgarejo,L. Barrera, J. Carrillo, M. Moreno, Y. Vargas, G. Rodríguez, O. Moratto,C. Guerrero, D. Denis, A. Hernández, C. Calderón, S. Hernández, S. Barón, M. Villada, A. Martinez, O. Montealegre, Y. Parra, J. 2006. Oferta y potencialidades de un banco de germoplasma del género Theobroma en el enriquecimiento de los sistemas productivos de la región amazónica. Universidad Nacional de Colombia. Instituto de Investigaciones Científicas, Sinchi.

Hernández,M. Barrera, J. 2009. Frutas amazónicas: Competitividad e Innovación. Instituto Amazónico de investigaciones Científicas Sinchi.
Hernández, M. Castro, S. Giraldo, B. Barrera, J. 2018. Seje, Moriche, Asaí: Palmas Amazónicas con potencial. Instituto Amazónico de investigaciones Científicas. Bogotá.

Hernández, M. Barrera, J. Fernández,J. Carrillo, M. Bardales, X. 2007. Manual de manejo de Cosecha y postcosecha de frutos de Arazá (Eugenia Stipitata Mc. Vaught) En la Amazonia Colombiana. Instituto Amazónico de investigaciones científicas Sinchi. Bogotá

IAvH. (2015). Territorios colectivos y biodiversidad. Obtenido de http://reporte.humboldt.org.co/biodiversidad/2015/cap4/406/#seccion1

ICA. (2O2O). Censo Pecuario Nacional. Recuperado de: https://www.ica.gov.co/areas/pecuaria/servicios/epidemiologia-veterinaria/censos-2016/censo-2018.aspx

IGAC. (2018). Catastro Multipropósito. Obtenido de https://www.igac.gov.co/es/contenido/areas-estrategicas/catastro/catastro-multiproposito

IGAC. (2018). Informe de Gestión del Sector Estadístico 2017-2018. Bogotá, D.C.: IGAC.

IGAC. (2020). Consulta por municipio. Obtenido de https://igac.gov.co/es/catastro-multiproposito/consulta-por-municipio

IGAC. (2020). Directorio de Gestores Catastrales. Obtenido de https://igac.gov.co/es/catastro-multiproposito/directorio-de-gestores-catastrales

IGAC. (abril de 2020). Informe de Gestión Primer Trimestre. Obtenido de https://igac.gov.co/sites/igac.gov.co/files/informe_de_gestion_primer_trimestre_2020_0.pdf

Incoder. (2012). Zona de Reserva Campesina del Guaviare. Plan de Desarrollo Sostenible

Instituto Alexander von Humboldt y CorpoAmazonia. (2007). Sondeo de mercado para productos elaborados a partir de frutales en la Amazonia colombiana.

Instituto Amazónico de Investigaciones Científicas. (1999). Guaviare: población y territorio. Ministerio del Medio Ambiente. Tercer Mundo Editores.

Instituto de Hidrología, Meteorología y Estudios Ambientales. (2018). Obtenido de IDEAM PRESENTÓ LOS DATOS ACTUALIZADOS DEL MONITOREO A LA DEFORESTACIÓN EN 2017: http://www.ideam.gov.co/web/sala-de-prensa/noticias/-/asset_publisher/LdWW0ECY1uxz/content/id/72115815?_101_INSTANCE_LdWW0ECY1uxz_urlTitle=ideam-presento-los-datos-actualizados-del-monitoreo-a-la-deforestacion-en-2017

Instituto de Hidrología, Meteorología y Estudios Ambientales. (2018). Resultados Monitoreo de la deforestación. Obtenido de http://www.ideam.gov.co/documents/24277/91213793/Actualizacion_cifras2018FINALDEFORESTACION.pdf/80b719d7-1bf6-4858-8fd3-b5ce192a2fdc
Instituto de Hidrología, Meteorología y Estudios Ambientales. (Abril-Junio de 2020). Boletín de Detección Temprana de Deforestación. Obtenido de http://documentacion.ideam.gov.co/openbiblio/bvirtual/023892/23BOLETIN_AT.pdf

Instituto Geográfico Agustín Codazzi-IGAC. (1997). Zonificación Ambiental para el Plan Modelo Colombo – Brasilero (Eje Apaporis – Tabatinga: PAT).
Jan Börner y Thales AP West, c. A. (2018). Transforming REDD+: Lessons and new directions. Bogor, Indonesia: Center for International Forestry Research (CIFOR).

Jiménez, J. (2019). Ordenamiento Productivo y Social de la Propiedad en la Amazonía: Casos Caquetá y Guaviare. Estrategias y Desarrollo. Bogotá, D.C.: Instituto SINCHI.
KFW, GIZ. 2015. Rewarding REDD+ action and supporting low-deforestation development in the Colombian Amazon. KfW, GIZ and BMZ, Frankfurt. Gobierno de Colombia 2015: Visión Amazonía. – Bogotá.

KPMG. (2019). Análisis político y económico (PEA) de la deforestación en regiones afectadas por el conflicto en la Amazonía colombiana. Caso de Caquetá, Meta y Guaviare. Bogotá: KPMG

Kay, C. (14 noviembre, 2013) Acaparamiento de tierras en América Latina. Disponible en http://www.alainet.org/active/68928
Lander, E. Los límites del planeta y la crisis civilizatoria Ambitos y sujetos de las resistencias. Revista Venezolana de Economía y Ciencias Sociales. Universidad Central de Venezuela Caracas, Venezuela: pp. 141-166-

Leff, E. (2005). La Geopolítica de la Biodiversidad y el Desarrollo Sustentable: economización del mundo, racionalidad ambiental y reapropiación social de la naturaleza. Observatorio Social de América Latina. Buenos Aires. CLACSO.

Legrand, C. (1988). Colonización y protesta campesina en Colombia: 1850-1950. Ediciones Uniandes: Universidad de los Andes.

LeGrand, C (1986) Frontier Expansion and Peasant Protest in Colombia, 1850-1936. Albuquerque: City of New Mexico Press.
Lenis, Y. R. (2014). La historia de las áreas protegidas en Colombia, sus firmas de gobierno y las alternativas para la gobernanza. Sociedad y economía No. 27, 155-176.

López, R. Navarra, J. Montero, M. Amaya, K. Rodríguez, M. Polania, A. (2006) Manual de identificación de especies no maderables del corregimiento de Tarapacá. Instituto Amazónico de Investigaciones Científicas -Sinchi.

López-Camacho, R. y Murcia-Orjuela, G. (2020). Productos forestales no maderables (PFNM) en Colombia. Consideraciones para su desarrollo. Bogotá: Ministerio de Ambiente y Desarrollo Sostenible; Unión Europea.

Ley 52. (24 de novimebre de 1948 Por la cual se declara reserva nacional la sierra denominada La Macarena, en la Intendencia del Meta, y se crea la Estación Biológica José Jerónimo Triana). Obtenido de http://www.suin-juriscol.gov.co/viewDocument.asp?ruta=Leyes/1606080#

Ministerio de Medio Ambiente, 2016. Medidas priorizadas para la contribución nacionalmente determinada deColombia en Mitigación de GEI. NDC Colombia. Disponible en: http://www.minambiente.gov.co/images/Medidas_NDC_25_agosto1_Version_Comunicaciones_2.pdf

Ministerio de Medio Ambiente, 2016. Listado de NAMAs en curso. Estrategia Colombiana de Desarrollo Bajo en Carbono. Disponible en: https://www.minambiente.gov.co/images/cambioclimatico/pdf/Accion_nacional_Ambiental_/PORTAFOLIO_NAMAS_DCC_publicar_ultima_version.pdf

Ministerio de Agricultura y Desarrollo Rural.. (2017). www.minagricultura.gov.co. Récupéré sur resolución 464 de 2017 "por la cual se adoptan los lineamientos de política pública para la Agricultura Campesina, Familiar y Comunitaria y se dictan otras disposiciones": https://www.minagricultura.gov.co/Normatividad/Resoluciones/Resoluci%C3%B3n%20No%20000464%20de%202017.pdf

Ministerio de Agricultura y Desarrollo Rural. (2018). www.minagricultura.gov.co. Récupéré sur Por medio del cual se define la frontera agrícola nacional : https://www.minagricultura.gov.co/Normatividad/Proyectos%20Normativos/FINAL%20PROYECTO%20DE%20RESOLUCION%20FRONTERA%20AGRICOLA%20Y%20ANEXOS.pdf

Ministerio de Ambiente y Desarrollo Sostenible. (2020). Séptima fase de Campaña Artemisa permitió la protección de 1461 hectáreas en Zona de Reserva Forestal de la Amazonía en Caquetá. Obtenido de https://www.minambiente.gov.co/index.php/noticias/4833-septima-fase-de-campana-artemisa-permitio-la-proteccion-de-1-461-hectareas-en-zona-de-reserva-forestal-de-la-amazonia-en-caqueta

Ministerio de Defensa Nacional. (2016). Política Ambiental del Sector Defensa. Visión de futuro de las Fuerzas Armadas. Bogotá.

Ministerio de Medio Ambiente y Desarrollo Sostenible. (SF). Reservas Forestales Establecidas por la Ley 2° de 1959. Bogotá.

Ministerio de Medio Ambiente y Desarrollo Sostenible. (2014). Plan Nacional de Negocios Verdes.
Ministerio de Medio Ambiente y Desarrollo Sostenible, WWF, PNUD y GEF. (2018). Caracterización de las cadenas de valor de los productos forestales no maderables en el Chocó biogeográfico.

Mollet, S (2016) The Power to Plunder: Rethinking Land Grabbing in Latin America. Antipode Volume 48, Issue 2.

Melgarejo, L. Hernández, M. Barrera, J. Bardales, X. 2004. Caracterización y usos potenciales del banco de germoplasma de ají amazónico. Universidad Nacional de Colombia.

Mejía, D. 2007. Sondeo de mercado para productos elaborados a partir de frutales en la Amazonica Colombiana. Instituto Alexander Von Humboldt. CorpoaMazonia.

Moreno, Rubén., Villota, N., Gutiérrez, E., Marín, J., Zuñiga, J., Linares, R., (S.F) Protocolo para la revisión y evaluación de planes de manejo forestal. Posicionamiento de la Gobernanza Forestal en Colombia. Unión europea.

Montero, I. Barrera. J, Giraldo, B. Lucena, A. 2016. Fichas técnicas de especies de uso forestales y agroforestales en la Amazonia Colombiana. Instituto Amazónico de Investigaciones Científicas Sinchi. Bogotá.
Mongabay Latam. (14 de noviembre de 2019). Cordillera de los Picachos: el miedo que quedó después de un gran operativo militar. Obtenido de: https://es.mongabay.com/2019/11/parque-nacional-picachos-colombia-operativo-militar-aumenta-el-peligro/

Movimiento Mundial por los Bosques Tropicales. (12 de marzo de 2019). https://wrm.org.uy/es. Obtenido de El costo humano de las áreas estrictamente protegidas en la Cuenca del Congo: https://wrm.org.uy/es/articulos-del-boletin-wrm/seccion1/el-costo-humano-de-las-areas-estrictamente-protegidas-en-la-cuenca-del-congo/

Navarro G. (2018). Las políticas de uso de la tierra y gestión del bosque como instrumento para la paz, el desarrollo rural y la conservación de bosques. Centro Agronómico Tropical de Investigación y Enseñanza. Turrialba. Costa Rica.

Negret, P., Di Marco, M., Sonter, L., Rhodes, J., Possingham, H., & Maron, M. (28 de Abril de 2020). Effects of spatial autocorrelation and sampling desing on estimates of protected area effectiveness. Conservation Biology, 34(6), 1452-1462. doi:10.1111/cobi.13522

Olaya, C. (2019). El extraño campesinado amazónico. Obtenido de: https://www.elespectador.com/colombia2020/opinion/el-extrano-campesinado-amazonico-columna-891105/

Ojeda, D (2016) Los paisajes del despojo: propuestas para un análisis desde las reconfiguraciones socioespaciales. Revista colombiana de antropología. 52, 2. 19-43.

Organización de las Naciones Unidas para la Alimentación y la Agricultura. (2018). Las Zonas de Reserva Campesina: retos y experiencias significativas en su implementación. Aportes para una adecuada aplicación de la ley 160 de 1994, la reforma rural integral y las directrices voluntarias para la gobernanza de la tenencia. Bogotá: FAO.
Ortiz, D. (2016). Políticas de desarrollo alternativo en el Guaviare: formación local del estado y producción estatal del espacio. Trabajo de grado en Antropología y Sociología. Bogotá: PUJ [no publicado].

Orozco M. 2017. Diagnóstico del marco normativo relacionado con el aprovechamiento de los productos forestales no maderables por parte de las corporaciones autónomas regionales. Universidad militar nueva granada. Facultad de ingeniería. Tesis especialización. Especialización en planeación ambiental y manejo integral de los recursos natales
Oquendo R. & Cevallos C. 2020. Perfil de mercado para la exportación de infusión de Guayusa a Madrid- España. Universidad Católica de Santiago de Guayaquil .

Pajares, E. (2014). Políticas públicas y cambio global: Una prospectiva del cambio climático en la Amazonía andina. Oxfam.

Palma J. González C. 2018. Recurso Arbóreos y arbustivos tropicales para una ganadería bovina sustentable. Universidad de Colima.

Paredes, P. (2011). Diagnóstico, procedimientos y lineamientos de políticas para la gestión de tierras y territorios en parques nacionales y otras áreas protegidas de Colombia. Bogotá: Parques Nacional Naturales de Colombia.

Parques Nacionales Naturales. (s.f.). Apoyo Presupuestario Desarrollo Local Sostenible. Obtenido de: https://www.parquesnacionales.gov.co/portal/es/desarrollo-local-sostenible/

Peluso, N and Lund, C (2011) New frontiers of land control: Introduction. The Journal of Peasant Studies, 2011.

Peña, C., y Vanegas, G. (2010). Dinámica de suelos Amazónicos: Procesos de degradación y alternativas para su recuperación. Instituto SINCHI. Bogotá.

Peña, D. L., Bocanegra-Silva, J. L., Hernández-Salgar, A. M., y Bonilla-Rubio, G. (2017). La cooperación internacional en el sector ambiental: Retos y oportunidades. En Moreno, L. A., Andrade, G. I., y Ruiz-Contreras, L. F. (Eds.). 2016. Biodiversidad 2016. Estado y tendencias de la biodiversidad continental de Colombia. Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. Bogotá, D. C., Colombia.

Pérez, C. J. (2009). Pagos por servicios ambientales en el municipio de San Pedro del Norte, Nicaragua, y su contribución a la adaptación al cambio climático. Políticas y sistemas de incentivos para el fomento y adopción de buenas prácticas agrícolas, 243.
PNN. (2017). Plan de Manejo Parque Nacional Natural Cordillera Los Picachos. Obtenido de Parques Nacionales: https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2018/04/Plan-de-Manejo-PNN-Cordillera-de-los-Picachos.pdf

PNN. (2018a). Parque Nacional Natural Sierra de La Macarena. Plan de Manejo Ambiental (2018-2023). Obtenido de PNN de Colombia: https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2018/07/PM-Macarena-JULIO-9-de-2018-1.pdf

PNN. (2018b). Parque Nacional Natural Tinigua: Plan de Manejo Ambiental 2018-2023. Obtenido de PNN: https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2018/04/PM-PNN-Tinigua-Marzo-5-2018.pdf

PNN. (2019a). Diagnóstico del SINAP. Documento en construcción. Obtenido de Parques Nacionales: https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2019/07/PRESENTACION-DIAGNOSTICO-SINAP-03.07.2019.pdf

PNN. (2019b). Hacia una política para el Sistema Nacional de Áreas Protegidas Visión 2020-2030. Documento en construcción v 2.0. Obtenido de https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2019/07/DOCUMENTO-POLITICA-SINAP-V2-03.07.2019.pdf

PNN. (2020a). Planes de Manejo Áreas del Sistema de Parques Nacionales Naturales de Colombia. Obtenido de https://www.parquesnacionales.gov.co/portal/es/organizacion/planes-de-manejo-areas-del-sistema-de-parques-nacionales-naturales-de-colombia/#:~:text=El%20plan%20de%20manejo%20es,corto%2C%20mediano%20y%20largo%20plazo.

PNN. (2020b). Política para la consolidación del Sistema de Áreas Protegidas (SINAP). Visión 2020-2030. Obtenido de Ministerio de Ambiente y Desarrollo Sostenible: https://www.minambiente.gov.co/sinap/images/wwwf/PROPUESTA_HOY/20201221_Politica_SINAP_Consolidada_VF_2.pdf

Prada, E; Salgado, C. (2020). Campesinado y protesta social en Colombia 1980-1995. Cinep. Bogotá.

Presidencia de La República de Colombia. (2019). Abecé de la Política de Defensa y Seguridad para la Legalidad, el Emprendimiento y la Equidad. Acceso de https://id.presidencia.gov.co/Paginas/prensa/2019/190206-Abece-de-la-Politica-de-Defensa-y-Seguridad-para-la-Legalidad-el-Emprendimiento-y-la-Equidad.aspx

Presidencia de la República. (2019). Con la puesta en marcha de la Campaña 'Artemisa', buscamos parar la hemorragia deforestadora que se ha visto en los últimos años en el país: Presidente Duque. Obtenido de https://id.presidencia.gov.co/Paginas/prensa/2019/190428-puesta-marcha-Campana-Artemisa-buscamos-parar-hemorragia-deforestadora-ha-visto-ultimos-anios-pais-Duque.aspx

Presidencia de la República. (2019). Con la puesta en marcha de la Campaña 'Artemisa', buscamos parar la hemorragia deforestadora que se ha visto en los últimos años en el país: Presidente Duque. Obtenido de: https://id.presidencia.gov.co/Paginas/prensa/2019/190428-puesta-marcha-Campana-Artemisa-buscamos-parar-hemorragia-deforestadora-ha-visto-ultimos-anios-pais-Duque.aspx

Presidencia de la República. (28 de abril de 2019). Con la puesta en marcha de la Campaña 'Artemisa', buscamos parar la hemorragia deforestadora que se ha visto en los últimos años en el país: Presidente Duque. Obtenido de https://id.presidencia.gov.co/Paginas/prensa/2019/190428-puesta-marcha-Campana-Artemisa-buscamos-parar-hemorragia-deforestadora-ha-visto-ultimos-anios-pais-Duque.aspx

Presidencia de la República. (18 de octubre de 2019). Campaña Artemisa retoma control de 1.500 hectáreas deforestadas en el Parque Natural La Paya, que iban a ser usadas con fines ilícitos, e inicia plan de reforestación. Obtenido de https://id.presidencia.gov.co/Paginas/prensa/2019/Campana-Artemisa-retoma-control-1500-hectareas-deforestadas-Parque-Natural-La-Paya-iban-a-ser-usadas-fin-ilicitos-191018.aspx

Presidencia de la República. (22 de febrero de 2020). Fuerza Pública desarrolló cuarta fase de la 'Operación Artemisa' para la recuperación y protección del Parque Nacional Natural Tinigua. Obtenido de https://id.presidencia.gov.co/Paginas/prensa/2020/Fuerza-Publica-desarrollo-cuarta-fase-Operacion-Artemisa-para-recuperacion-proteccion-Parque-Nacional-Natural-Tinigu-200222.aspx

Presidencia de la República. (s.f.). Zonas futuro: Zonas Estratégicas de Intervención Integral . Obtenido de https://id.presidencia.gov.co/Documents/190808-Infografia-Zonas-Futuro.pdf

Procuraduría General de la Nación. Directiva 007 de 2019: lineamientos para el reconocimiento, prevención, promoción y defensa de los derechos del campesinado. Obtenido de: https://www.procuraduria.gov.co/relatoria/media/file/flas_juridico/2413_PGN%20Directiva%20007%20de%202019.pdf .
Radice . Vidari G. SF: Caracterización fitoquímica de la especie ilex guayusa Loes. Y elaboración de un prototipo de fitofármaco de interés comercial. Universitá degli studi di pavia. italia

Reyes, A (2016) Guerreros y campesinos: el despojo de la tierra en Colombia, de Alejandro Reyes Posada*. Bogotá: Editorial Norma / Fescol, 2009, 378 páginas.

Resolución 029. (07 de Octubre de 2011). Por la cual se oganizan las Direcciones Territoriales y se determina la adscripción de las Áreas del Sistema de Parques Nacionales. Obtenido de Parques Nacionales Naturales: https://www.parquesnacionales.gov.co/portal/wp-content/uploads/2013/12/Res.-029-de-2011.pdf

Resolución 1196. (27 de Junio de 2018). Por la cual se crea el registro de las motosierras en ciertas áreas del territorio nacional afectadas por la deforestación y se toman otras determianaciones. Obtenido de Ministerio de Ambiente y Desarrollo: https://www.minambiente.gov.co/images/normativa/app/resoluciones/cb-RES%201196%20DE%202018.pdf

Resolución 1256. (10 de Julio de 2018). Por medio de la cual se reverva, limita, alindera y declara como parte de Parque Nacional Natural la Serranía de Chiribiquete un área ubicada en los municipios de Calamar, Miraflores y San José del Guaviare en el departamento de Guaviare y San Vicente del. Obtenido de Ministerio de Ambiente y Desarrollo Sostenible: https://www.minambiente.gov.co/images/normativa/app/resoluciones/97-RES%201256%20de%202018.pdf

Richani, N (2016) THE AGRARIAN RENTIER POLITICAL ECONOMY: Land Concentration and Food Insecurity in Colombia.Latin American Research Review, Vol. 47, No. 2 (2012), pp. 51-78

Rivero, F., Elena, M., Díaz Briones, A., Vignola, R., Sucre, L.,Torres, F., . Sánchez, J. (2012) Cambio climático y bosques: promoviendo la participación indígena en Costa Rica. (pp. 100). Turrialba, Costa Rica: Centro Agronómico Tropical de Investigación y Enseñanza (CATIE).

Robalino, J., & Villalobos, L. (2014). Efectividad de las políticas de conservación en Costa Rica Vigesimoprimer informe Estado de la Nación en Desarrollo Humano Sostenible (pp. 20). Costa Rica: Estado de la Nación.

Rodríguez, J., Del Cairo, C., Ortiz, D., Vélez, J. S., Vergara, T., Hein, J. (2020). Forests, the post-conflict transition and REDD+ in Colombia: Challenges to reducing deforestation in the Amazon. (Submitted to Forest Policy and Economics).

Santamaria, M., Areiza, A., Matallana, C., Solano, C., & Galán, S. (2018). Estrategias complementarias de conservación en Colombia. Obtenido de Instituto Alexander von Humboldt (IAvH): http://reporte.humboldt.org.co/biodiversidad/2018/cap3/301/#seccion7

Salgado, C. (2002). Lo campesino en los imaginarios tecnocráticos. Cuadernos Tierra y Justicia. Instituto Latinoamericano de Servicios Legales Alternativos. Bogotá.

Salgado, H. (2012). El campesinado de la Amazonia colombiana: Construcción territorial, colonización forzada y resistencias. Universidad de Montreal. (Tesis para obtener el grado de doctor en Antropología)

Sánchez, O. (2009). El pago por servicios ambientales del Fondo Nacional de Financiamiento Forestal (FONAFIFO), un mecanismo para lograr la adaptación al cambio climático en Costa Rica. CATIE, UNEP, CATHALAC, the Global Mechanism, 223-242.

Sanchez Ayala, L. (2018). Acaparamiento territorial. Impactos socioespaciales. Uniandes.
Sanchez, Ayala L & Vargas, G. (2018). Acaparamiento Territorial y Poderes de Exclusión. In Acaparamiento territorial. Impactos socioespaciales. Uniandes

Santaella Quintero, Héctor, "Los planes de ordenamiento territorial departamental: beneficios y riesgos de un instrumento clave para la ordenación del territorio en Colombia", Revista digital de Derecho Administrativo, Universidad Externado de Colombia, n.o 20, 2018, pp. 57-94. doi: https:// doi.org/10.18601/21452946.n20.05. p. 75.

Schoijet, M. (2008). Límites del Crecimiento y Cambio Climático. México DF: Siglo XXI.
Skutsch, M., & Turnhout, E. (2020). REDD+: If communities are the solution, what is the problem?. World Development, 130, 104942.

Semana Sostenible. (2020). Operativo en La Macarena genera ola de críticas contra el Gobierno. Acceso Obtenido de https://sostenibilidad.semana.com/impacto/articulo/operativo-en-la-macarena-genera-ola-de-criticas-contra-el-gobierno-i-colombia/54900

Semana Sostenible. (2018). Los triunfos y críticas del primer operativo contra la deforestación en el país. Acceso : https://sostenibilidad.semana.com/medio-ambiente/articulo/asi-fue-el-operativo-contra-la-deforestacion-en-el-parque-los-picachos/41952

Semana Sostenible. (2019). Recuperan 361 hectáreas de bosque en Chiribiquete. Obtenido de https://sostenibilidad.semana.com/medio-ambiente/articulo/recuperan-361-hectareas-de-bosque-en-chiribiquete/44901
SIAC. (2015). Manejo especial. Obtenido de SIAC: http://www.siac.gov.co/manejoespecial

SINCHI. (Septiembre de 2016). Propuesta de zonificación y ordenamiento ambiental de la Reserva Forestal de la Amazonía colombiana creada mediante la Ley 2 de 1959. Obtenido de Instituto Amazónico de Investigaciones Científicas (SINCHI): https://sinchi.org.co/files/PUBLICACIONES%20DIGITALES/Zonificaci%C3%B3n%20Ambiental%20y%20Ordenamiento%20de%20la%20Reserva%20Forestal%20de%20la%20Amazonia/1.%20Sistemas%20General%20Zonificacion/1%20SG1%20Sintesis%20Zonificacion%20y%20Ordenamiento%20ZRFA.p

Sterling, Armando. Rodríguez, Carlos. Melgarejo, L. 2015. Evaluación inicial del asociacio Caucho- Copoazú en el caquetá: una alternativa de enriquecimiento agroforestal con potencial para la amazonia colombiana. Instituto Amazónico de investigaciones científicas. Sinchi. Bogotá
Stoian, D., Rodas, A., Butler, M., Monterroso, I., & Hodgdon, B. (2018). Las concesiones forestales en Petén, Guatemala: Un análisis sistemático del desempeño socioeconómico de las empresas comunitarias en la Reserva de la Biósfera Maya: CIFOR.

Stern, N. (2006). La economía del Cambio Climático. Obtenido de: https://calentamientoglobal.files.wordpress.com/2007/02/stern_conclusiones_esp.pdf

Svampa, Maristella. (2019). El Antropoceno como diagnóstico y paradigma. Lecturas
globales desde el Sur Utopía y Praxis Latinoamericana. Universidad del Zulia, Venezuela.

Tittor, Anne. (2017). "Acaparamiento verde." InterAmerican Wiki: Terms - Concepts - Critical Perspectives. www.uni-bielefeld.de/cias/wiki/g_Green_Grabbing.html.

Trouillot, Michel-Rolph. (2011). Transformaciones globales. La antropología y el mundo moderno. Popayán: Universidad del Cauca-CESO, Universidad de los Andes.

Torres G. 2013. El aprovechamiento de la Guayusa Ilex Guayusa Manual de buenas prácticas de recolección para la cosecha de hojas.
Tuñez, Francisco. (2019). La dimensión geopolítica del cambio climático. Universidad del Salvador. Obtenido de: file:///C:/Users/Usuario/Downloads/2019.LaDimensinGeopolticadelCC3.0-Completo%20(1).pdf

UADCT (2012) Manual operativo Grupo Móvil de Erradicación. Versón1.

USAID Colombia. 2015. Plan de negocios Acai (Eiuterpe precatoria)

Van der Ploeg, J. D. (2013). Ten qualities of family farming. Farming Matters, 29(4), 8-11.

Van Huis, A; et al. 2013. Edible insects: future prospects for food and feed security. FAO Forestry Paper 171. Food and Agriculture Organization of the United Nations, Wageningen UR. Roma. 201 p.

Veltmeyer, H. (2018). The social economy in Latin America as alternative development. Canadian Journal of Development Studies/Revue canadienne d'études du développement, 39(1), 38-54.

Vergara, T., Ortiz, D., Vélez, J., & Cairo, C. D. (2017). Dinámicas de tenencia de la tierra y derechos de las comunidades locales en el departamento del Guaviare, Colombia Informe final presentado al Deutsches Institut für Entwicklungspolitik (DIE) German Development Institute - Referencia Klimalog project (pp. 93). Bogotá: Fundación de Estudios Sociales y Ambientales.

Viveros, M. (2016). La interseccionalidad: una aproximación situada a la dominación. Debate Feminista, V. 52, 1-17. Recuperado de https://www.sciencedirect.com/science/article/pii/S0188947816300603

Wezel, A., Bellon, S., Doré, T., Francis, C., Vallod, D., & David, C. (2009). Agroecology as a science, a movement and a practice. A review. Agronomy for sustainable development, 29(4), 503-515.

WWF. (12 de 06 de 2008). www.wwf.org.co. Obtenido de https://www.wwf.org.co/?136941/Antes-de-2020-la-tasa-de-deforestacion-se-reducira-a-cero

WWF Colombia, W. (s.f.). Amazonas. Obtenido de https://www.wwf.org.co/donde_trabajamos/amazonas/

WWF. (29 de Diciembre de 2020). ¿Qué son las Reservas Forestales Protectoras Nacionales? Obtenido de https://www.wwf.org.co/sala_redaccion/noticias/?uNewsID=365650