

Visión Amazonía

REM Program

Visión Amazonía

REM Program



In this photograph from left to right: Francisco Javier Canal Albán, Vice Minister of Environmental Land Management; Sandra Patricia Vilardy Quiroga, Vice Minister of Environmental Policy and Standardization; María Susana Muhamad González, Minister of Environment and Sustainable Development and José Yunis Mebarak, General Coordinator of Visión Amazonía REM Program

Photo: Héctor Suricata

Visión Amazonía

Programa REM

JOSÉ YUNIS MEBARAK
PABLO CORREA TORRES

This work should be cited as follows:

If citing the entire work: Yunis Mebarak, José; Correa Torres, Pablo; Visión Amazonía: Towards a sustainable forestry model. Bogotá, 2023.

If citing a chapter of the book, e.g.: Yunis Mebarak, J; Correa Torres, P; Nace el compromiso con los bosques [This marks the commitment to the forests] in: Yunis Mebarak, José; Correa Torres, Pablo. Visión Amazonía: Towards a sustainable forestry model. Bogotá, 2023.

1st edition: 14 June 2023 ISBN: XXX-XXX-XXXX-XX-X

Gustavo Francisco Petro Urrego
President of the Republic of Colombia

Ministry of Environment and Sustainable Development:

María Susana Muhamad González - **Minister of Environment and Sustainable Development**

Sandra Patricia Vilardy - **Vice-Minister of Environmental Policies and Regulations**

Francisco Javier Canal Albán - **Vice-Minister of Territorial Environmental**

REM Colombia Visión Amazonía Programme:

José Yunis Mebarak - **General Coordinator**

José Ignacio Muñoz - **Pillar Leader Forest Governance**

Ricardo Lara Melo - **Pillar Leader Sectoral Development**

Yezid Beltrán Barreiro - **Agro-environmental Development Pillar Leader**

Eduardo Ariza Vela - **Environmental Governance with indigenous peoples Pillar Leader**

Edersson Cabrera - **Enabling Conditions Pillar Leader**

Editorial Coordination:

Communications Area, Visión Amazonía

Design:

Carlos Giovanni Gaona Cortés

Wilmar Alexander Mogollón Rodríguez

Style Correction:

Aura Isabel Olano Correa

English translation:

Patricia Beltrán Chauvez

Andrés Felipe Celis

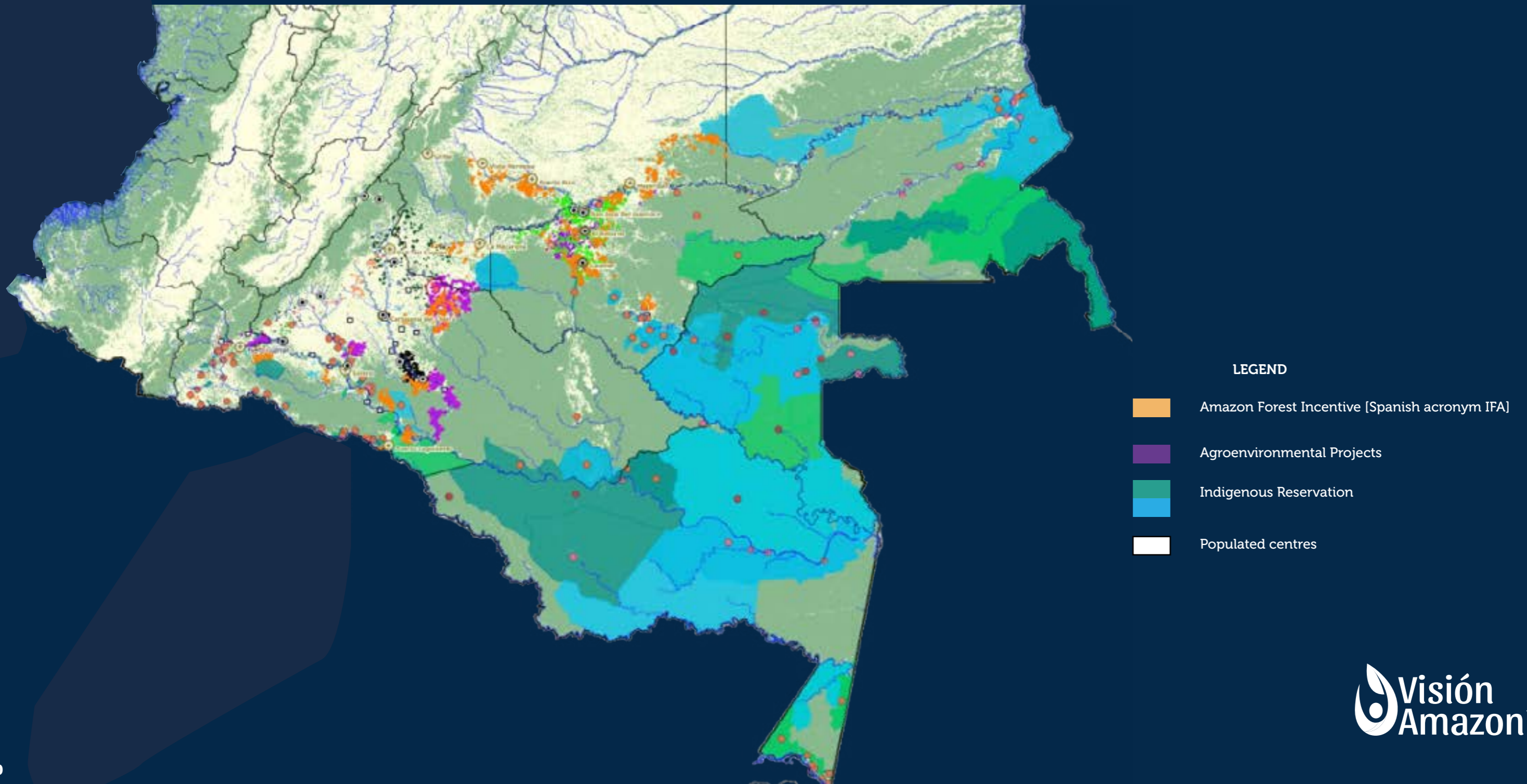
Photographs:

Ángela Silva, José Ignacio Muñoz, Emilio Aparicio, Álvaro Gaviria, Wilmar Mogollón, Héctor Suricata, Hugo Rueda, Angie Bustos, Laura Sáenz, Janeth Bougard, José Yunis Mebarak, Marco Ortiz, Juan Camilo Jiménez, Eduardo Ariza, Edwin Hurtado.

All rights reserved.

The total or partial reproduction as well as its integration into a computer system and its transmission in any form or by any means (electronic, mechanical, photocopying, recording or others) without written authorization of its owner, is prohibited

Portfolio of interventions Visión Amazonía REM Program I



Figures of the REM Programme



Ítem	Number of peasant families	Number of ha under agreement
Agroenvironmental Projects	3.527	72.584
Rural Area	3.810	57.551
Financial Instruments	1.140	24.624
Productive Alliance	1.059	31.856
Value Chains	301	2.472
Payment for environmental services	2.573	120.263

Other figures

Ítem	Figures
Escuela de Selva program	740 dipoma certificates
PRAEs* y PROCEDAs*	2.500 young people and children
Trained extension worker	345 professionals
Hectares under forest management	1'130.477 hectares
Processing plants	5 delivered 3 in progress
National Forest Inventory	72% progress
Nature Tourism	6 projects

*School Environmental Projects
**Citizen Environmental education Projects



This tourist cabin is located in El Venado reservation where the community has organized itself around nature tourism in the Cerros de Mavecure Hills, Guainía, with the support of the CDA Corporation [Corporation for the Sustainable Development of the North and East Amazonian] and Visión Amazonía REM program.

Photo: Ángela Silva

Contents

Prologue



Chapter

1

The origins



Chapter

2

Commitment to forests is born



Chapter

3

The search for US \$100 million



Chapter

4

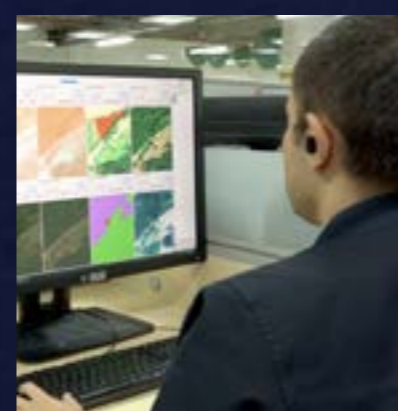
The lesson of Brazil



Chapter

5

The four-way negotiation



Chapter

6

The science of counting trees



Chapter

7

An attempt to
sort the jungle



Chapter

8

Governing in
the forest



Chapter

9

The management
of the world



Chapter

10

The fruits of
the forest



Chapter

11

Amazonia
2050



Chapter

12

Financial
mechanism



Escuela de Selva was an environmental education program aimed at community leaders in the villages with the highest rates of deforestation, in alliance with the University of Amazon.

Photo: José Ignacio Muñoz

Acronyms

AATIS: Association of Indigenous Traditional Authorities of Amazon

ACICATCH: Zonal Association of Indigenous Councils and Authorities of La Chorrera

ACT: Amazon Conservation Team

ASOCRIGUA: Association of the Indigenous Regional Council of Guainía

ASOHECA: Association of Reforesters and Rubber Growers of Caquetá

ASOPROCEGUA: Association of Agricultural Producers for Economic Change in Guaviare

ATD: Early Deforestation Alerts

CDA: Corporation for the Sustainable Development of the North and East Amazonian

CIAT: International Centre for Tropical Agriculture

CRCD: Regional Coordination of Deforestation Control

CTF: Forest Transformation Centres

DANE: National Administrative Department of Statistics

EOT: Land Use Planning Scheme

ESA: European Space Agency

FCDS: Foundation for Conservation and Sustainable Development

FMAM: Global Environment Facility

GEI: GHG- sGreenhouse gases

GGGI: Global Green Growth Institute

GIRSA: Integrated Socio-environmental Risk Management

GLAD: The Global Land Analysis and Discovery

IDEAM: Institute of Hydrology, Meteorology and Environmental Studies

IFA: Amazon Forest Incentive

IPCC: Intergovernmental Panel on Climate Change

MADR: Ministry of Agriculture and Rural Development

MIACC: Amazon Indigenous Environmental and Climate Change Roundtable

MOTRA: Amazon Regional Land Management Model

MRA: Regional Amazonian Roundtable

NAD: Active Deforestation Nucleus

NASA: National Aeronautics and Space Administration

NDF: Forest Development Nucleus

NREF: Forest Emissions Reference Level

OPIAC: Organization of Indigenous Peoples of the Colombian Amazon

PAS: Accompaniment and Monitoring Platform

PFNMB: Non-timber Forest Products

PMFC: Plant-microbial Fuel Cell

PNMB: Non-Timber Forest Products

PNN: National Natural Parks of Colombia

PPD: Small Grants Programme

PQRS: Petitions, Complaints, Claims, Suggestions and Denunciations

PSA: Payments for Environmental Services

RAISG: Amazonian Network of Georeferenced Socio-environmental Information

RAP Amazonía: Administrative and Planning Region for the Amazon

REDD+: Reducing Emissions from Deforestation and Forest Degradation

REM: REDD Early Movers

SESA: Strategic Environmental and Social Assessment

SGR: General Royalties System

SINA: National Environmental System

SINAP: National System of Protected Areas

SIS: National Safeguard System

SMBYC: Forest and Carbon Monitoring System

SNS: National Safeguard System

TdR: Terms of Reference

TNC: The Nature Conservancy – ONG

UCA: Annual Felling Unit

UER: REM Programme Implementation Unit

USD: US dollar

WWF: World Wildlife Fund



Susana Muhamad

Minister of Environment and Sustainable Development of the Republic of Colombia

One of the transforming goals of the National Development Plan in the Government of Change is precisely to curb deforestation and recover lost nature. For this reason, the Ministry of Environment and Sustainable Development outlined a strategy to implement a plan to curb deforestation in the Colombian Amazon. This strategy proposes to carry out actions with a social approach in the Amazon, seeking to generate a reconversion of deforestation into a change towards a forest culture in the territories, supported by indigenous peoples and local communities. This plan has 5 fundamental pillars: i. Social agreements; ii. Institutional strengthening actions; iii. Research and intelligence to reach large deforesters; iv. Consolidation of an integrated information system for forest monitoring; and v. Total peace.

Thus, in order to execute this strategy, we have taken advantage of the experience of Visión Amazonía REM program, which is now in its third government, and from this territorial experience we are learning and we consider that we should maintain its actions.

To curb the phenomenon of deforestation, which in the last 20 years passed 3 million hectares, a figure that requires hard work on issues of deforestation containment and restoration, therefore, the Colombian government is committed to strategies and resources, such as the creation of the restoration agency and the containment plan, prioritized in the national development plan 2022-2026.

In this process, the active participation of communities, indigenous peoples, Afro and youth, is very important as they have ratified their commitment to work to save the forest, support that also came from important allies such as Norway, Germany and others, who support this ecosystem restoration strategy with communities and have provided significant resources to feed a large fund to save the Amazon rainforest and ecosystems of Colombia.

Although Visión Amazonía is a program, it should in all its forms become one of the Axes and be part of the National Environmental System (SINA), since its knowledge and experience would contribute enormously to meet the goal set by the National Government. Its knowledge, experience and trajectory should be capitalized to specify an action of real change in the face of climate change: to save the Amazon rainforest, which means life.

In good time, this transcendental compilation is made, and from the sector and the Ministry of Environment we accompany, and that will surely be the basis to help move from 250 thousand hectares to 750 thousand restored hectares, an ambitious challenge in the history of the country. To recover what has been lost is to take care of an asset for the country and the world in environmental and climatic terms; it is the fundamental factor that sends a message to the countries of the region and the world regarding the climate action that Colombia is carrying out.

We are going through a unique moment in the country where different reactions are converging, not only at the political level, but also at the level of civil society, to which we cannot be indifferent. The climate crisis is now, that is why we must act decisively supported in building with knowledge and we must take advantage of this opportunity so that in the modernization of SINA, after 30 years, programs such as Visión Amazonía, cease to be just that, a program and become decisive actors to fight or at least curb deforestation.

Let us hope that at the end of this process, the sector can give a positive report and a report of tranquillity in which through the modernization of the National Environmental System and the structures of the different institutions and their multiple programs, from the Government of Change we can meet the demands of the communities and of course of the citizens.

PNN Serranía de Chiribiquete
Photo: Emilio Aparicio

PNN Serranía de Chiribiquete

Photo: Alvaro Gaviria

**José Yunis Mebarak**General Coordinator of Visión Amazonía
Colombia REM Program

This book is an account of the REM Visión Amazonía program, the Colombian government's most important initiative to stop deforestation in the Amazon in the last 7 years. Made in Colombia, the program is an alliance, minga (association) and partnership with the Territories of Norway, the United Kingdom and Germany.

As a story, we try to give voice to all those actors in the region and in other latitudes that otherwise would remain anonymous and have contributed to reduce deforestation in the Colombian Amazon. The text covers the initial approaches, the exploratory missions, and the negotiations that led to the final text of Visión Amazonía REM program. Of course, this book also includes figures, numbers of beneficiaries per action, hectares conserved, number of projects and other important data, but it is not a final report of activities. We include in annexes the technical documents, presentations of the most important components such as payment for environmental services, forestry development nuclei, rural extension provided, green credits applied, indigenous community projects, some terms of reference that may be of interest to those concerned in the issue of deforestation and also the reference costs of each line of action at 2020 values.

Although the first phase of the Visión Amazonía REM program officially closes on June 30, 2023, the second phase, financed by Germany and the Kingdom of Norway, is already underway and in the middle of this year it was confirmed that the United Kingdom will make an additional contribution of at least 15 million pounds sterling, in order to give continuity to the alliance of these four countries.

While the road to reducing deforestation is very complex, the significant reduction in deforestation in 2022 and recent announcements by the Colombian government give renewed hope. According to these announcements, the Colombian government will have a significant budget for this purpose in the coming years, where it is also expected to implement national reforms and policies to achieve national deforestation reduction goals. The creation of the new environmental fund and the issuance of the new development plan are important steps in this direction. Of course, Visión Amazonía REM program will continue to provide its services and accompany the country in this vital issue for the world and as Colombian as its jungle.



Chapter

1

The Origins

VISIÓN AMAZONÍA
REM Program





Nature tourism is definitely a real productive, sustainable and profitable alternative. KfW Bank monitoring mission to the REM program, October 2022. Project to strengthen tourism in the Sierra de La Macarena route with Natupaz.

Photo: Wilmar Mogollón



As far as we know, there is nothing like a forest in the entire Milky Way galaxy. We live in an oasis in the middle of a cosmic desert. Astrophysicist Carl Sagan noted this with melancholy eloquence: “We find that we live on an insignificant planet of a humdrum star lost in a galaxy tucked away in some forgotten corner of a universe in which there are far more galaxies than people.” The most Earth-like planet where, with a lot of luck, something like an alga could exist, and with a lot more luck something like a ceiba or araucaria, is at least 300 light years away from us.

The story of the forests that have dyed this forgotten corner of the planet green is a rather eccentric one. Forests summarize a long sequence of evolutionary hazards, of improbabilities. They are witnesses and survivors of eras in which we humans had not even peeked into this corner of the universe. They tell a story of resilience.

This story begins with little leafiness, but a lot of tenacity. It is tied to the establishment of plant life on the earth’s surface. To algae that found a way to cope with the harshness of a non-aquatic environment. Dry land is a very stressful environment for an organism that plans to live on photosynthesis¹. The control of fire by early humans, the invention of the wheel or smart phones, a selection of our anthropomorphic ego, may seem like a great innovation, but the colonization of land by plants implied drastic innovations in their anatomy and biochemistry that, in turn, impacted global biogeochemical cycles, opening the way to many other forms of life: to biological diversity

Terrestrial conquest by plants must have occurred somewhere between 470 to 500 million years ago². At least that is what molecular clocks and some fossil clues indicate. We humans made our debut on the tree of life much later. We are a twig that sprouted only about 300,000 years ago. We are upstarts. Still a time experiment.

Those first plants that ventured out of the water lacked buds and leaves. Scientists believe

that approximately 430 million years ago the innovation of buds and leaves triggered an explosion of biodiversity that radically transformed this cosmic oasis: it precipitated a 10-fold increase in the number of plant species, promoted soil development, and led to an 8- to 20-fold reduction in atmospheric CO₂, significantly shaping Earth’s geosphere and biosphere³.

In that long evolutionary history, plants have faced five mass extinctions. And they have survived by adapting time after time. The last of these, 66 million years ago, was triggered by the impact of the Chicxulub meteorite over the Yucatan region. After the brutal collision, not only did dinosaurs become extinct, but 70% of animal species and 40% of plants became extinct. Precisely as a result of this massive extermination, tropical forests began a reorganization in the following millennia until they became the monumental cathedrals of diversity that we know today.

“Knowing that the forest of today is the product of a precise instant millions of years ago, of a particular minute, is fantastic. If the meteorite had fallen a minute earlier or later, everything would be different”

Carlos Jaramillo

Before the meteorite, in the tropical forests of South America, as has been recently demonstrated by a good group of scientists, mainly from Colombia, there was a more even distribution of ferns, flowering plants and trees such as araucarias⁴. They were forests in which the species, let’s say, had “more personal space”, and because they were more distant from each other, light filtered down to the ground. It rained as it does today, but all indications are that they were also less productive in terms of the water they pumped into the atmosphere. The jungle we know today, humid, cramped, dominated by flowering

plants and trees that fight millimetre by millimetre the space of the canopy until together they create a large umbrella through which light filters with difficulty, the jungle from which flying rivers emerge and water the entire continent, was born after that cataclysm.

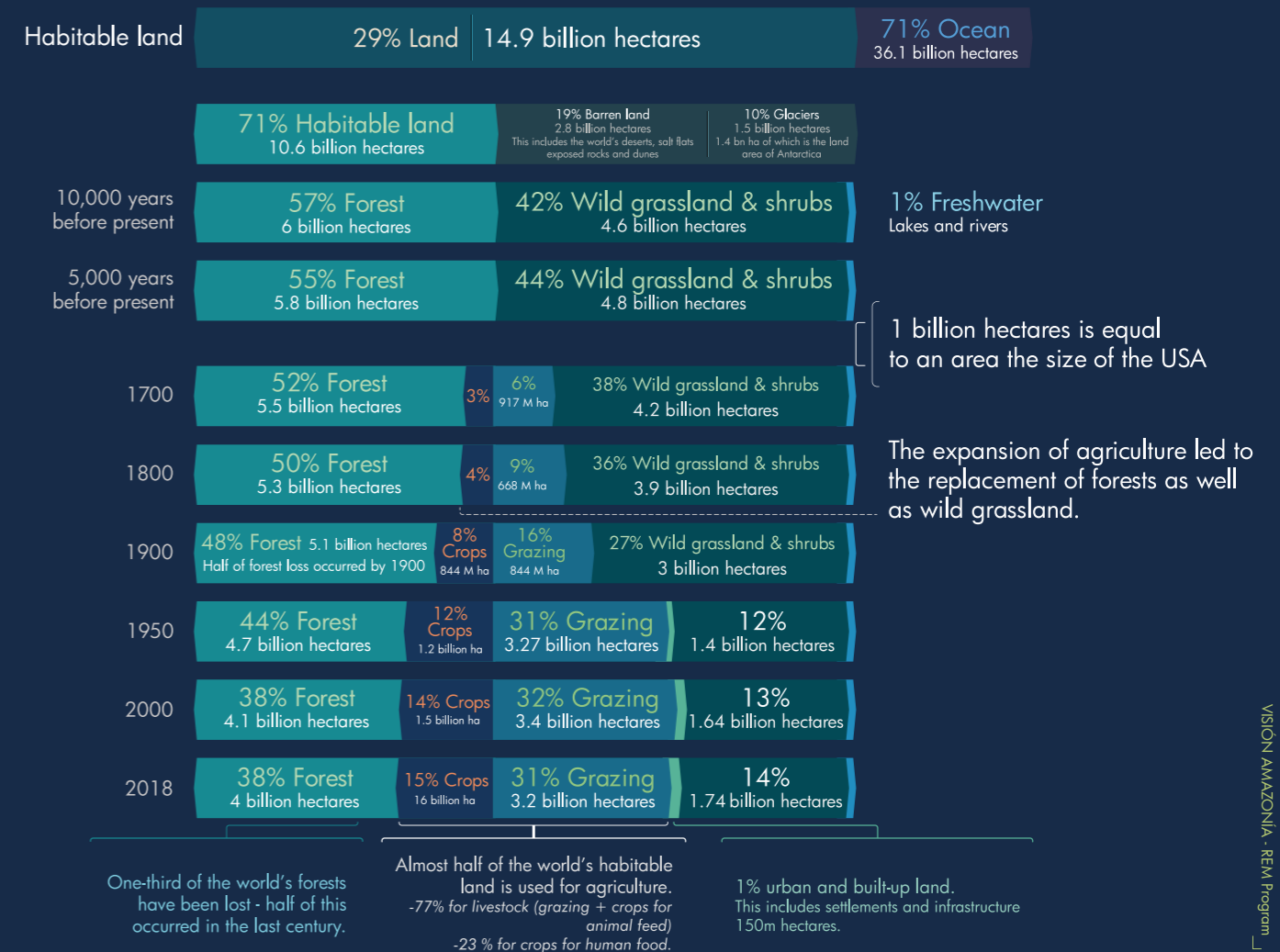
As Colombian palaeontologist Carlos Jaramillo pointed out: “knowing that the forest of today is the product of a precise instant millions of years ago, of a particular minute, is fantastic. If the meteorite had fallen a minute earlier or later, everything would be different”⁵.

Unfortunately, we easily forget this lesson. We forget the chain of random events that allow us to be here. We often lose our ca-

capacity for surprise at the fragile balance that intertwines the biology, chemistry and physics of this planet. And despite being newcomers in this long history, we humans have become a force capable of upsetting that balance, even against our own benefit. We are destroying the forests that sustain life on the planet.

It is estimated that forests account for just over one-third (38%) of the world’s habitable land area⁶. This is about a quarter (26%) of the total land area (habitable and uninhabitable). Tropical forests cover about 12% of the Earth’s land surface.

The world has lost one-third of its forest since the last ice age

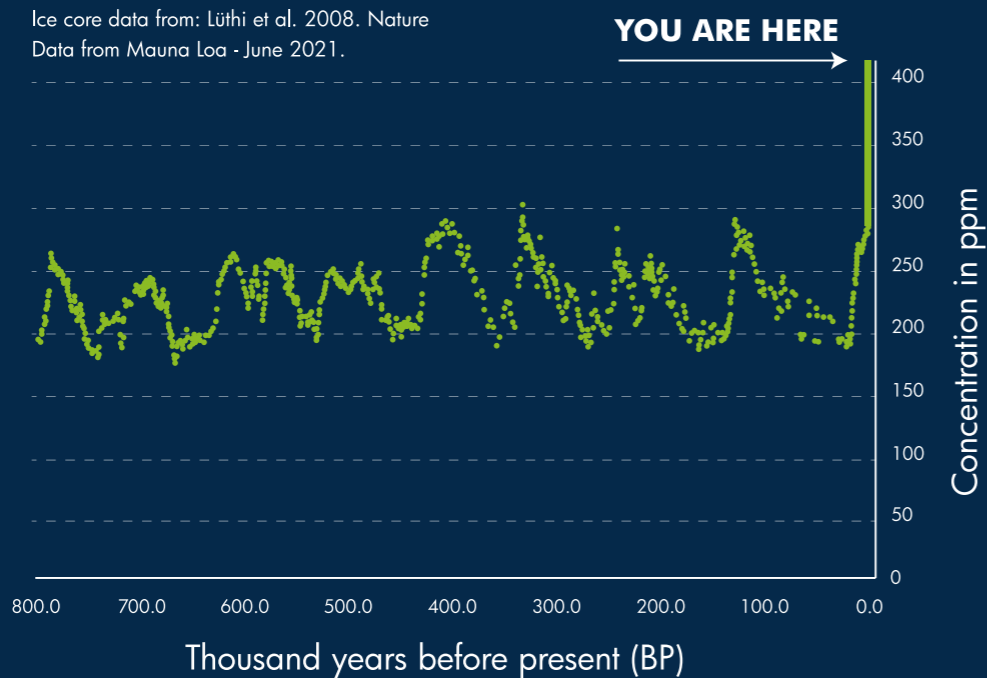


¹ De Vries, J. Archibald J. (2018) Plant evolution: landmarks on the path to terrestrial life. New Phytologist [2018] 217: 1428–1434.
² Morriss J, Pütticka M, Clark J, et al. The timescale of early land plant evolution. Proc Natl Acad Sci. [2018] 115(10): E2274-E2283.
³ Harrison CJ, Morris JL. 2017. The origin and early evolution of vascular plant shoots and leaves. Phil. Trans. R. Soc. B 373:20160496.
⁴ Carvalho M, Jaramillo C, De la Parra F. Extinction at the end-Cretaceous and the origin of modern Neotropical rainforests. Science. [2021] 372: 63-68.

⁵ Interview with Carlos Jaramillo. The asteroid that wiped out the dinosaurs gave rise to our tropical forests. El Espectador Newspaper. April 1, 2021.
⁶ <https://ourworldindata.org/forestarea>

But every year we cut down 10 million hectares (which is equal to one hectare every 4 seconds). And in doing so, we open an old Pandora's box that releases the carbon stored in forests, which together with the burning of fossil fuels are the two main drivers of climate change. If 430 million years ago carbon se-

questration by the planet's plant mass triggered an explosion of biodiversity, we humans are foolishly reversing that equation. We are releasing carbon, increasing the planet's average temperature, and causing a substantial decline in biodiversity.



In just one century, we have caused an increase of more than 150 parts per million of CO₂ in the atmosphere, which has already resulted into a 1.2-degree Celsius increase in global temperature. At the same time, the destruction of ecosystems has led to an unprecedented rate of species loss. We Colombians are jointly responsible for this. Every year we deforest an average of 150,000 hectares of forest, 66% of them in the Amazon.

We are destroying the forest at a rate that far exceeds its capacity for self-regeneration. How long will the Amazon be able to withstand our clumsiness? A study conducted by an international team of researchers, estimated in 2020 that 40% of the Amazon is at risk of becoming a savanna-type ecosystem due to the climate crisis⁷.

The message from scientists was clear: the tipping point of this great jungle may be much closer than previously thought.

The circuit breaker for that tipping point could be the loss of rainfall. "The dynamics of tropical forests are interesting. As forests grow and spread over a region, this affects rainfall: forests create their own rain because leaves emit water vapor and this falls as rain," said researcher Ingo Fetzer of the Stockholm Resilience Centre: "we now understand that tropical forests on all continents are very sensitive to global change, and can rapidly lose their adaptive capacity. Once they are gone, their recovery will take many decades to return to their original state. And since tropical rainforests are home to the majority of all the world's species, all of this will be lost forever."

⁷Staal A, Fetzer I, Wang-Erlandsson L. Hysteresis of tropical forests in the 21st century. Nature Communications. [2020] 11: 4978.



ABEL DURANTE

Indigenous from the Curripaco ethnic group and member of the Association of Meliponicultores (Beekeepers) of Guainía - ASOMEGUA.

Besides working in the chagra, growing food crops and taking care of his young daughter, Abel is dedicated to raising melipona bees in the community of La Ceiba, in the municipality of Inírida, Guainía.

There is a total of 39 indigenous families of the Curripaco people who, together with nature tourism and stingless bees, promote respect for the environment.

Salomé is 3 years old and is "a tick" with her father. Abel gave up some of his income-producing activities to devote time to his daughter. He used to be a hunter of scalars, a species of ornamental fish that is highly wanted and well paid in the national market, but this activity meant that he would spend all night out of his house, "night-lighting" in the river in search of shoals, far from the care that his little daughter demanded.

One day, he agreed to participate in the melipona bee project, which is co-financed by Visión Amazonía, a REM program of the Mi-

nistry of Environment and Sustainable Development, and Alianzas Productivas of the Ministry of Agriculture and Rural Development.

As an expert he talks about the great contribution of bees to the planet with pollination and shows the differences between the 4 or 5 species that he has in his community.

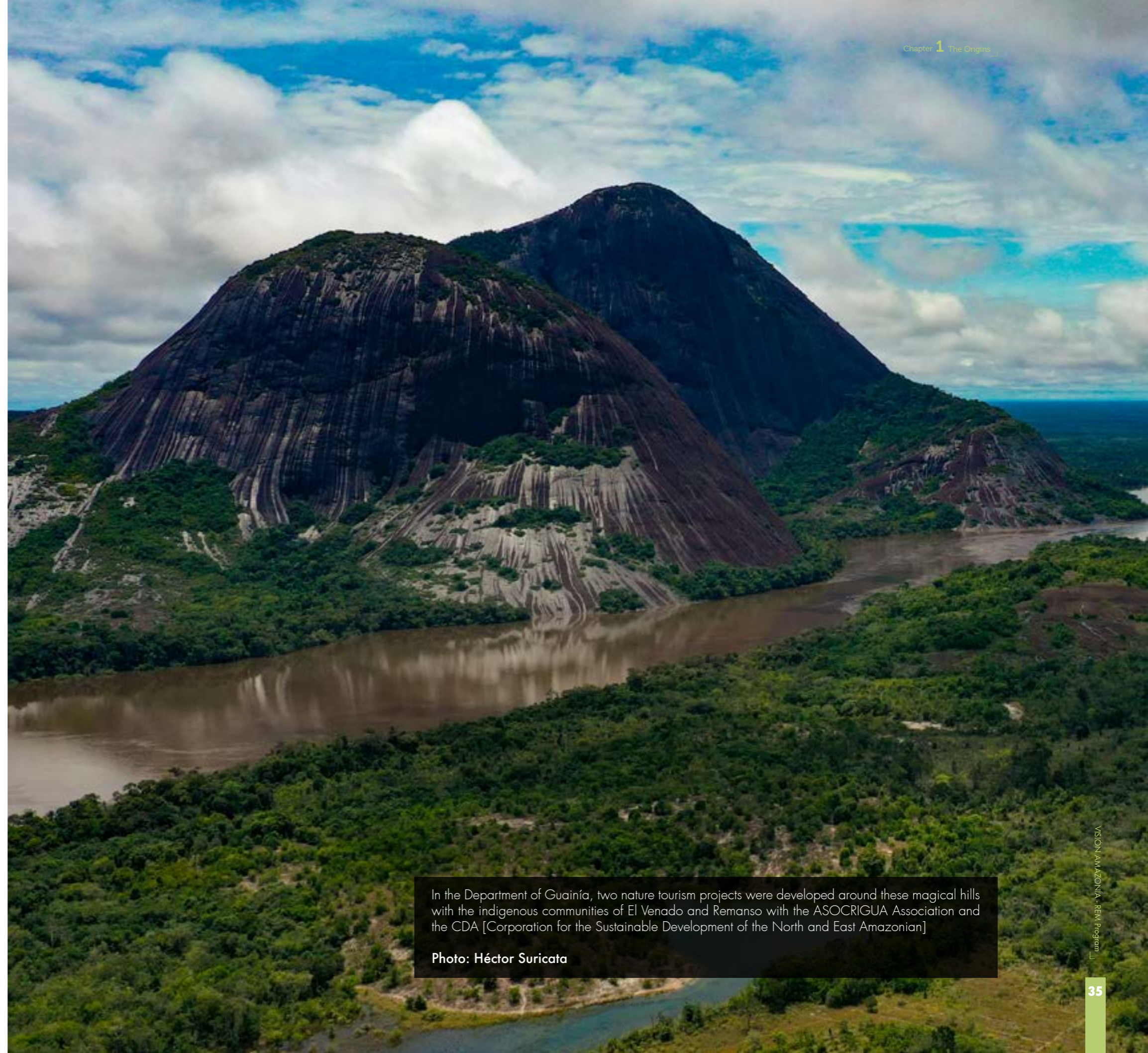
"Bees are very easy to maintain, I come to check my hives for an hour in the morning to make sure that they have not been attacked by another animal, verifying the honey production, and I come back again in the afternoon or before going to sleep to make sure they are protected", says Abel, who also says that harvest days demand a little more time, but nothing that prevents him from taking care of his daughter.

This dedicated father has the support of his sister, Arelys Durante, with whom he lives and who helps him with the housework, the chagra and food preparation.

Our ancestors learned to live together and take advantage of the richness of the forest. We seem to have forgotten that other lesson. Growing evidence suggests that pre-Columbian peoples, at least as early as 8,000 years ago, began to shape and transform Amazonian forests in many ways: through plant cultivation (preceded by slash-and-burn), seed dispersal and propagation, and in situ care of useful resources such as domesticated plants⁸.

Cocoa (*Theobroma cacao*), to mention just one example, is proof of this. It was first domesticated in humid forests on nutrient-rich soils in north western Amazonia. From there, it migrated to dominate the showcases of chocolate shops around the world. Every time we put a piece of chocolate in our mouths, we are actually savouring the evolutionary miracle of the rainforests, coupled with the talent of the first inhabitants of these same forests to identify species, cultivate them and select them for our benefit.

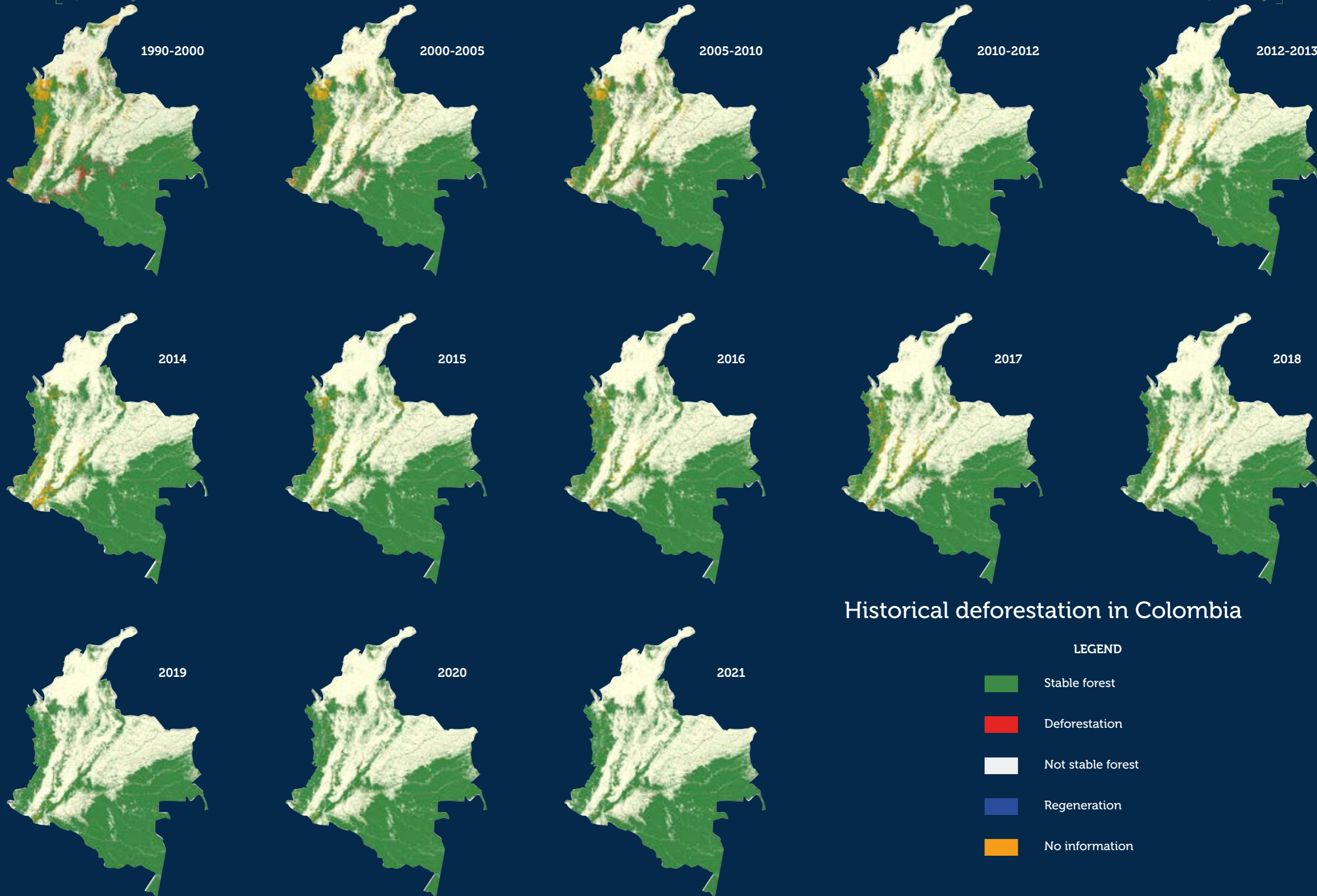
Can we stop the deforestation of tropical forests before we cross the point of no return? Will we learn the lesson of our ancestors to coexist with the forest without destroying it? This log is a record of the efforts that a generation of Colombians is making to stop deforestation and protect the Amazonia.



In the Department of Guainía, two nature tourism projects were developed around these magical hills with the indigenous communities of El Venado and Remanso with the ASOCRIGUA Association and the CDA [Corporation for the Sustainable Development of the North and East Amazonian]

Photo: Héctor Suricata

⁸ Slevin C, Costa F, Bongers M F. Persistent effects of pre-Columbian plant domestication on Amazonian forest composition. *Science*. [2017]. Vol 355, Issue 6328 • pp. 925-931.



Historical deforestation in Colombia

- LEGEND
- Stable forest
 - Deforestation
 - Not stable forest
 - Regeneration
 - No information



KLAUS KOEHNLEIN

Financing REDD+ in South America - KfW Development Bank

Every year, the KfW bank in charge of monitoring and supervising the execution of the resources of the Visión Amazonía REM program in Colombia makes a monitoring visit to evaluate the results achieved by the program in terms of reducing deforestation in the Colombian Amazon with the support of the local communities.

In the history of almost 7 years, the monitoring mission or field visit of the KfW bank has known on the ground the advances and also the development of all the activities that are financed with the resources of Germany, United Kingdom and Norway.

"To us it seems that Visión Amazonía REM program has attained very great achievements so far and that is why we have decided that there will be a second phase, a Visión Amazonía REM II program, for which we are preparing", mentioned Klaus Koehnlein when leaving the *sacha inchi* processing plant in San José del Guaviare last October 2022.

The monitoring mission also visited the Sierra de La Macarena Route, where nature tourism is promoted by 9 companies that provide tourism services and are members of the Natupaz Corporation.

During his visit to this region in the south of the department of Meta, Klaus Koehnlein mentioned the importance for both the KfW bank and the donors of knowing how the projects are implemented in the territory, how the funds reach the communities and what is the perception that the inhabitants of the Amazon have about a program of the magnitude of Visión Amazonía, finding that indeed when the actions are agreed with the communities, are aligned with the needs of the territory and the resources arrive, the results are positive.

"It is with great satisfaction that we find that Visión Amazonía REM program has a high credibility in the peasant and indigenous communities that inhabit the Colombian Amazon, but we are also pleased that the government of President Gustavo Petro and the Minister María Susana Muhamad, have recognized the great work that Visión Amazonía has done to position a model of sustainable forest development, showing directly to the communities that it is possible to live from the forest without cutting it down, turning active deforestation centres into nuclei of forest development". The government has taken the work of Visión Amazonía's REM program as a reference to replicate it in other areas of the Colombian Amazon where it is necessary to stop deforestation.

In turn, with these new resources from Norway and Germany, Visión Amazonía REM II program will continue to support the community processes of these 3 NDFs already consolidated and will support 3 others.

We are pleased that the Forestry Development Nuclei, Los Puertos, Nueva Ilusión and Orotuyo are moving forward in this process and also that more cooperation programs are entering to manage the country's strategy to hold deforestation.

Finally, the German bank's financial advisor for Latin America ratified that Germany will continue to support Colombia in the global fight against climate change.

Nature Tourism, Guape River
Photo: Hugo Rueda - Natupaz



In the village of Agua Bonita, the construction and equipping of the Amazon fruit processing plant was completed with the Asociación de Productores Agropecuarios para el Cambio Económico del Guaviare - ASOPROCEGUA, a project developed in partnership with the SINCHI Institute.

Photo: Emilio Aparicio



Chapter

2



Commitment to the
forests is born

VISIÓN AMAZONÍA
REM Program



ELISE CHRISTENSEN
Climate and Forest Advisor at the Norwegian Embassy

A NEW VISION FOR AMAZONIA: COLOMBIA'S FIRST PERFORMANCE-BASED PROGRAM TO REDUCE DEFORESTATION IN THE AMAZON.

Tropical forests have become a major source of greenhouse gas (GHG) emissions due to deforestation. Instead, if protected and conserved, they could be a big part of the climate solution. There is simply no way to achieve climate goals or sustainable development objectives without a change in direction. Colombia's Visión Amazonía REM Program represents this type of change, providing an example of how Colombia can move from extensive and inefficient land use in the Amazon to a deforestation-free development path, based on forestry and alternative livelihoods, placing farmers and indigenous peoples first.

World leaders are increasingly accepting the fact that we will not achieve global climate or nature goals if we do not stop the destruction of the rainforests. It is not enough to reduce greenhouse gas emissions; we must also preserve as much as possible the nature's own capacity to absorb and store carbon. For that, we need to keep nature intact. This recognition laid the groundwork for Norway's Forest and Climate Initiative, which was launched 15 years ago. The argument was that, if the world pays countries that manage to take care of forests, we all win.

One of Norway's first partners was Colombia. For Norway it was and still is clear that protecting the forests in the Colombian Amazon is of great importance for the world's climate and biodiversity, for ethnic communities and the global community in general. Therefore, after a couple of years of preparations and negotiations, in 2015 Norway together with Germany and the UK were finally able to make the first payment to Colombia under the Joint Declaration of Intent signed between the same countries at the climate summit in Paris. The payment coincided with the official launch of Colombia's "Visión Amazonía", the sustainable development strategy that would help Colombia achieve its goal of "zero net deforestation" in the Amazon by 2020. It was the first time that three major donor countries came together to pay a tropical forest country to reduce emissions from forests. In this sense, Colombia became an international REDD+ pioneer and an inspiration for other countries to follow.

During the program period, approximately US \$87.3 million in payments were paid for emission reductions achieved in the Amazon region during 2013-2016. Colombia invested the payments in the implementation of Visión Amazonía, which came at a favourable, but also crucial time

for Colombia's forests. The program has allowed for innovation with the creation of financial instruments with small farmers in the Amazon, such as green credits and conservation incentives. Rural extension services have been provided, placing women at the centre. Payment for ecosystem services has been implemented in several regions. Likewise, a new forest economy is being developed as part of closing the expansion of the agricultural frontier, a policy that now forms a central pillar of the Petro government's strategy to halt deforestation in the Amazon. And indigenous communities in the Amazon have received significant resources for their own "life plans". Approximately 22% of Visión Amazonía's funding goes to the indigenous peoples' pillar, while a minimum of 60% goes to local communities. Over the years, numerous farmers' associations and indigenous peoples' associations have benefited from the program. Although the Ministry of Environment and Sustainable Development has led the effort, Visión Amazonía is a joint effort with the Ministry of Agriculture and Rural Development, Ministry of the Interior, Ministry of Mines and Energy, Ministry of Transportation, the National Planning Department, the Peace Agreement Implementation Unit, the Sinchi Institute, IDEAM, National Natural Parks, regional environmental authorities,

civil society partners, indigenous peoples' organizations and many more. Stopping deforestation is not an easy task and requires a collaborative effort.

From the beginning, Visión Amazonía has achieved results that few other programs or projects would have achieved on their own. Other countries are looking to the Visión Amazonía program as a model to follow. A key priority of the program is to develop institutional capacity and instruments that can survive over time. Promoting a total change in management and sustainable land use requires large-scale financing, but more importantly, political will, institutional capacity and state presence. The Colombian government has put the Amazon region centre stage for its role in the global climate, for its natural and ethnic diversity, and also for its role as a source of sustainable rural development and total peace building. The Visión Amazonía Program continues to be a key initiative in this effort.



December 2009 in Copenhagen, Denmark, may be a good starting point for organizing and understanding a series of events that led to the creation of Visión Amazonía. That year and that month in particular, optimism for achieving a global agreement to face climate change that would replace the aged and incomplete Kyoto Protocol was making its way through the corridors of the Bella Center convention centre in Copenhagen, where representatives from more than 190 countries gathered.



To value a forest for its carbon is like valuing a computer chip for its silicon alone.

Thomas Lovejoy

Much of the optimism was because the United States, with President Barack Obama sitting in the White House, was willing to lead his country to a global pact to prevent the planet's temperature from rising more than 2°C

above the pre-industrial average temperature. The main weakness of the Kyoto Protocol was precisely that the Americans had refused in the previous decade to contribute to the mandatory reduction of greenhouse gas emissions. China, which had become the second power responsible for polluting emissions, was also left out of the mandatory mechanism, claiming that they were a developing country that could not sacrifice their energy expenditure in order to take millions of citizens out of poverty. During those days, in the cold Copenhagen, the then Secretary of State Hillary Clinton, quoted a Chinese proverb in a knowing wink to the other superpower from which greater commitments were expected: "When you are in a common boat, you must cross the river in peace".

One of the ideas that gained the most traction during those negotiations and in the previous year of preparation was a strategy to halt deforestation, named REDD, an acronym for Reducing Emissions from Deforestation and Forest Degradation. The first outlines of REDD were first hinted since 1997, but it was at the Climate Change Summit in Montreal, Canada, in 2005, when representatives from Papua New Guinea and Costa Rica insisted on its importance and since then the idea had been maturing¹. In 2008, the United Nations



Entrance of the Norwegian representation
Photo: José Yunis Mebarak



Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD Programme) was established.

It was clear to all that the fight against climate change depended inexorably on investing in the protection of tropical forests, which cover about 12% of the planet's surface and contain about 25% of the carbon in the terrestrial biosphere. The Intergovernmental Panel on Climate Change (IPCC) estimated at the time, that emissions from deforestation of tropical forests in the 1990s amounted to 1.6 billion tons of carbon per year, constituting 20% of total carbon emissions to the atmosphere.

The basic idea behind REDD ^{OR} was and is simple: countries that are willing and able to reduce carbon emissions from deforestation should be financially compensated.

Bharrat Jagdeo, President of Guyana, one of the first countries to begin experimenting with this mechanism, explained in a little red book ^{OR}, copies of which were circulated around Copenhagen, the objective of REDD: "If the post-Kyoto climate agreement fails to

avoid deforestation in the tropics, the goal of achieving the objectives of the fight against climate change will be virtually impossible. The lives and livelihoods of millions of people will be at risk and the eventual economic cost of combatting climate change will exceed the modest but necessary investments required today"².

REDD aroused enthusiasm in many sectors of the climate negotiations, but its design and operation were not very clear. How to accurately measure carbon? Which trees store more carbon and which store less? How to create global carbon accounting? How to avoid cheating in such accounting? How to prevent deforestation from shifting to other forests? How to make it sustainable? How to safeguard the rights of indigenous peoples and communities? NGOs and various countries launched their proposals.

For many, the Copenhagen summit ended up as a diplomatic failure. At the last minute, the architecture of the agreement collapsed. But one thing remained in place and in the memory of some of the attendees: the million-dollar bilateral agreement that Norway sealed





with Guyana in the prelude to the summit to try to stop deforestation in the Amazon. Norway committed to invest US\$ 30 million in Guyana's "REDD+" development fund and to make subsequent payments of up to US\$ 250 million, depending on the results achieved by the local government. With this gesture, Norway became by far the largest international donor to forest protection and the driving force behind the REDD strategy. By that time, a + sign had already been added to the acronym to symbolize the elements of conservation, sustainable forest management with local people's participation, and enhancement of forest carbon stocks. Since then, it has been known as REDD+.

The Norwegians had already injected \$50 million into the REDD+ program; another US \$40 million into the World Bank's Forest Carbon Partnership Facility; about US \$73 million in Tanzania; about US \$100 million for Congo; and about US \$1 billion for Brazil.

The Colombian delegation that traveled to Denmark returned with the task of beginning, on the one hand, to strengthen the forest monitoring system and, on the other, to structure

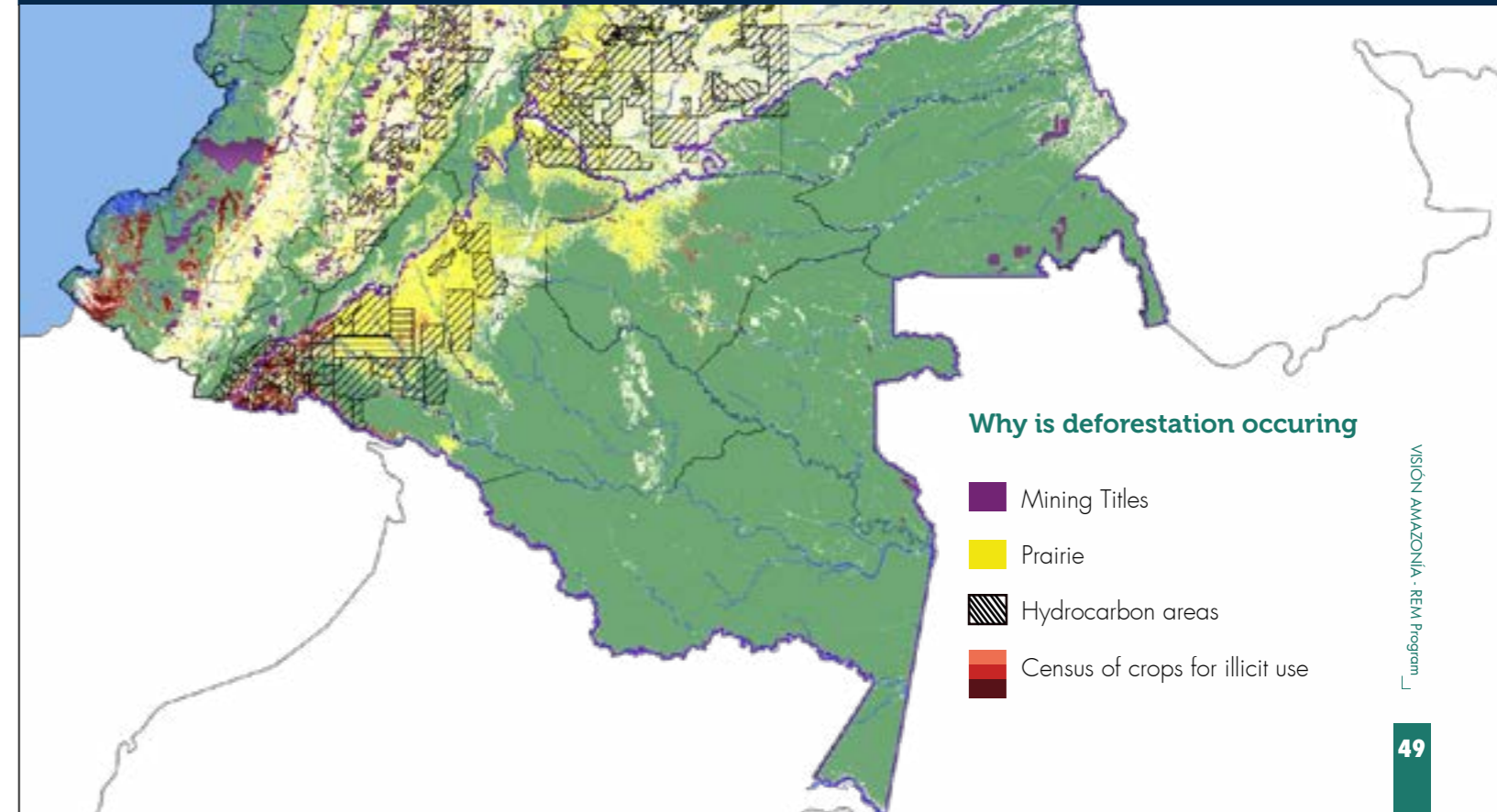
a proposal to eventually access funds from the UN-REDD Program. At that time, it was not even known exactly how many hectares of forest the country was losing annually. IDEAM [Institute of Hydrology, Meteorology and Environmental Studies] calculated a deforestation rate every two years using methodologies that were quite imprecise by international standards. According to these data, in the period between 1990 and 2010, 6.20 million hectares of forest were lost in Colombia, resulting in an average deforestation rate of 310,349 hectares per year. This figure was later corrected to be half of the estimated figure. In June 2010 Colombia officially began its preparation to be part of REDD+.

The first step was to design a preparation plan or "Readiness" ^{ca} plan. It was not an easy task for a group of officials aware of the importance of taking care of the forests, with great technical weaknesses and faced with the tremendous forces that interact in their destruction: illegal timber markets, coca crops, extensive cattle ranching, expansion of the agricultural frontier and planning based on an extractive model that is unfriendly to the ecosystems.

Drivers of Deforestation



Source: self made



As if that were not enough, most of these officials held low-visibility positions in the Ministry of Environment and Sustainable Development, in the Foreign Office or the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM). In fact, the Ministry of Environment that year was beginning to separate itself from the Ministry of Housing, which had been merged years earlier. Job stability is not a common factor either, despite the administrative career and the free appointment and removal positions are part of a political system of high rotation. On average, an environment minister in Colombia lasts one year and seven months, which ends up affecting many officials who keep the institutional memory of these medium- and long-term processes.

“Visión Amazonía is a program whose origin is intertwined with the origin of the REDD+ program in Colombia,” says Camilo Ortega, who as a National Parks official participated in the drafting of one of the first versions of this “Readiness” plan.

In 2010 the Colombian government managed to organize a series of early dialogues with different civil society actors, under the premise that only a collective action and with informed decisions would give legitimacy to any strategy against deforestation. An existing major gap was the quality of information on forests. It was clear to all that sooner rather than later a National Greenhouse Gas Inventory [Ingei] and a Forest Reference Emissions Level [FREL] would be necessary. If someone was going to pay for reducing deforestation, the first question they would ask would be: What is the area of forests? What is the rate of greenhouse gas emissions associated with logging? In that order of ideas, IDEAM, in charge of the National Forest Monitoring System, needed to be strengthened. They also knew that they would need to strengthen the capacities of key actors in other state institutions and finally begin to think about concrete and effective actions, areas in which they could intervene and work.

In the following three years a team formed by the Ministry of Environment and United Nations agencies (FAO, UNDP and UN-Environment) drew up the REDD+ Readiness Plan or Readiness Preparation Proposal [RPP], which ended with the approval of US\$ 4 million to promote the first measures. The plan would be renamed to avoid bureaucratic jargon and would be renamed in 2014 “Integrated Strategy to Control Deforestation and Manage Forests”.

Whoever tries to understand the actors involved in this process, but also keeps an eye on the history of public policies to manage forests and adds to that the constant production of technical documents and reports on the state of the forests, plus the ongoing international cooperation programs with other countries and multilateral banks, plus the projects implemented by civil society organizations and NGOs, plus the development of policies with indigenous peoples, Afro and other forest-dwelling communities and without leaving out the plans and projects of each ministry, department or municipality, will easily find themselves trapped in a bureaucratic spider’s web. This was precisely another of the obstacles that the first managers of a strategy to control deforestation in Colombia were beginning to experience. They knew they had to build a common vision for the Amazon.

At the same time that officials from different entities were coordinating and trying to move through this maze, a parallel process in Bogotá was being born and opening an alternative route to try to stop deforestation. If countries like Norway were willing to directly help nations with large forest masses, perhaps it was worth knocking on their door.



“Cama del güio” (bed of the Boa constrictor) or “Cama de la anaconda” (bed of the anaconda) is the indigenous name for the Raudal del Jirijirimo (Jirijirimo Tide), at this point is where the Apaporis River flows with more force and speed in the Department of Vaupés.

Photo: Emilio Aparicio



ESTANICH GRANT PINILLA OLARTE
Tribute to a great friend and colleague.



OLGA LUCÍA MORENO
Tribute to a great friend and colleague.

COLLEAGUES WE LOST DUE TO THE PANDEMIC

At the beginning of the year 2020, the news spoke of a deadly virus that was spreading around the world. It came from China, moved on to Europe and was particularly ferocious in Italy, the country with the highest number of infections. Little by little, uncertainty took over the whole world. In Colombia, by the second week of March, the REM Visión Amazonía program and its team began to work from home. A week later, the government announced total confinement and, gradually, we had to adapt to teleworking, virtual relationships, introspection, and anxiety. As the interventions and execution could not stop, each and every one of us studied how to reinvent our work plan in order to fulfil, as far as possible, our responsibilities and commitments acquired with the communities.

The umbilical cord with reality was the agro-environmental issue. The Government authorized work that had to do with peasants, food, but did not authorize to work with ethnic communities that did not follow strict protocols. The environmental education program “escuela de selva” [jungle school]” turned to virtuality, 600 tablets were acquired that had all the content of the eight learning modules, the communications

strategy became 100% digital, face-to-face events became webinars, meetings and trainings became virtual. Teams, meet, zoom, WebEx, among other platforms, were the most powerful and used communication tools.

After a year of confinement and working from home, little by little we started to go out, to gradually return to face-to-face activities, in small teams, taking all protective measures such as the use of masks, antibacterial gel and physical distancing. We started with the vaccination schedule and increased the number of activities out and about.

Many of the team got infected and overcame the deadly virus. Unfortunately, that did not happen to our colleague Estanich Grant Pinilla Olarte, forestry engineer, leader in innovation for the development of rural economic enterprises, expert in cocoa and chocolates, specialist in plant biotechnology, “a tough guy” in his field, as we call people in Colombia who know how to do something better than many. Estanich had joined the Visión Amazonía team in January 2021 to accompany Amazonian cocoa producers, with a view to certification and access to

international markets. Great human being, gifted with intelligence and charisma. Little by little he gained the affection, respect and trust of his co-workers. During field trips he was proactive, contributing his knowledge unselfishly to farmers and colleagues, always ready to take action, to propose, to collaborate.

Estanich and his wife Adriana were infected with COVID-19 simultaneously. Although they both went to the clinic in Bogotá, he remained hospitalized, not knowing that he would not go out again. During the weeks he was in the clinic, Estanich maintained communication with the work team, particularly with Yezid Beltrán, his immediate boss, José Yunis Mebarak and Janeth Bougard, communications coordinator. Cell phone in hand, he answered calls from colleagues, keeping us informed about his situation. He was always nervous, as if he sensed that he would not win the battle against the deadly virus. In spite of all the positive messages, Estanich left this world, being one of the victims left by COVID in Colombia. An irreplaceable and unforgettable co-worker, from REM Visión Amazonía we pay you this tribute.

Much further to the south and months after Estanich’s departure, Olga Lucía Moreno, a forestry engineer in San José del Guaviare, also left this world. Olga Lucia, a great professional committed to reducing deforestation, always exposing her life, always in function of the work, whether on a motorcycle or in a car, she travelled dusty and dangerous roads doing her job.

We will always remember these two colleagues for their commitment to the planet, to the environment, for their people skills and, above all, for their loyalty to their principles. Peace in their graves.

REST IN PEACE



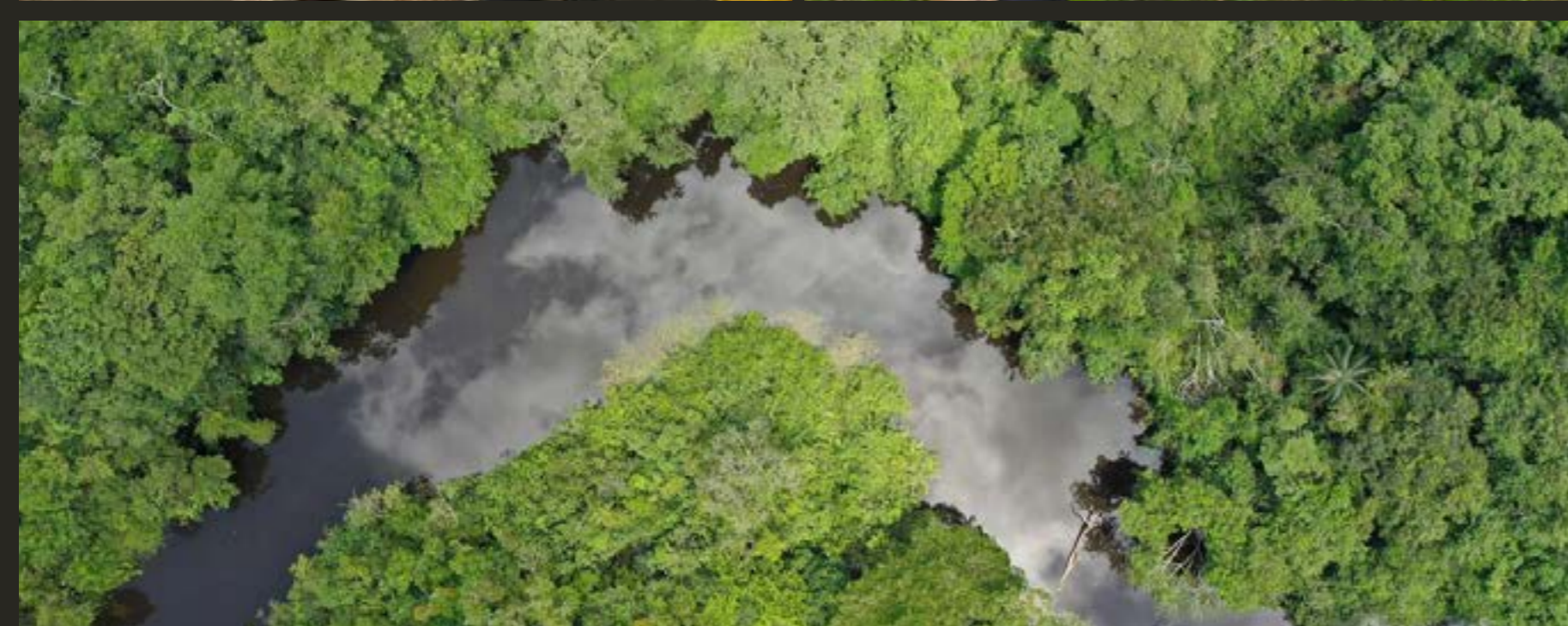
The indigenous peoples of the Colombian Amazon use the "carayurú" a natural painting, with which they represent their cosmivision in the dabucurís or ceremonies of gratitude.

Photo: Angie Bustos



Chapter

3



The search for US
\$ 100 million

VISIÓN AMAZONÍA
REM Program





In this photograph, from left to right: María Teresa Becerra, Head of the Office of International Affairs of Minister of Environment and Sustainable Development; and, José Rodrigo Bolaños, Contractor, in charge of the cooperation portfolio with Germany and Norway.

Photo: Wilmar Mogollón



Personajes 2013

Los 'chiribiquetes'

Julia Miranda, José Yunis y Carlos Castaño, Ambientalistas

20/12/2013



The idea of going out to look specifically for \$100 million to finance the fight against deforestation in Colombia came to José Yunis, today director of Visión Amazonía. “He at the time was working at The Nature Conservancy. José, one day he said to me, I see a possibility here, why we don’t think of something big. Why don’t we look for about \$100 million for the Amazonia”. That is the memory of lawyer Alejandra Torres Dromgold, who was in charge of the Office of International Affairs of the Ministry of Environment between 2012 and 2015 and was one of the managers of Visión Amazonía.

Alberto Galán, director of Fondo Patrimonio Natural, an institution specializing in strategic investments for environmental conservation in Colombia, also credits Yunis with this idea: “Yunis started with the issue that we should seek \$ 100 million. Those of us who had worked getting funds for the environmental sector told him that this was very complicated”.

José Yunis Mebarak had dedicated a good part of his life to the environmental protection of Colombian ecosystems. A lawyer from Universidad de los Andes, with a master’s

degree and specialization in public administration from John F. Kennedy School of Government at Harvard and Universidad de los Andes, he knew the ins and outs of the National Environmental System, because in the 1990s he actively participated in its design and later served as head of the legal offices of National Parks and the Ministry of the Environment. He was also aware of global conversations and initiatives to conserve forests, being the representative of the Colombian office of The Nature Conservancy, one of the largest environmental NGOs in the world, and at that time he was promoting the expansion of [Chiribiquete National Park](#).

“At that time, we were working with several people on the idea of expanding [Chiribiquete National Park](#) and thinking about how much a project to stop deforestation in its buffer zone might cost. That \$ 100 million figure was initially intended to have an impact in the buffer zone of Chiribiquete”, José Yunis recalls.

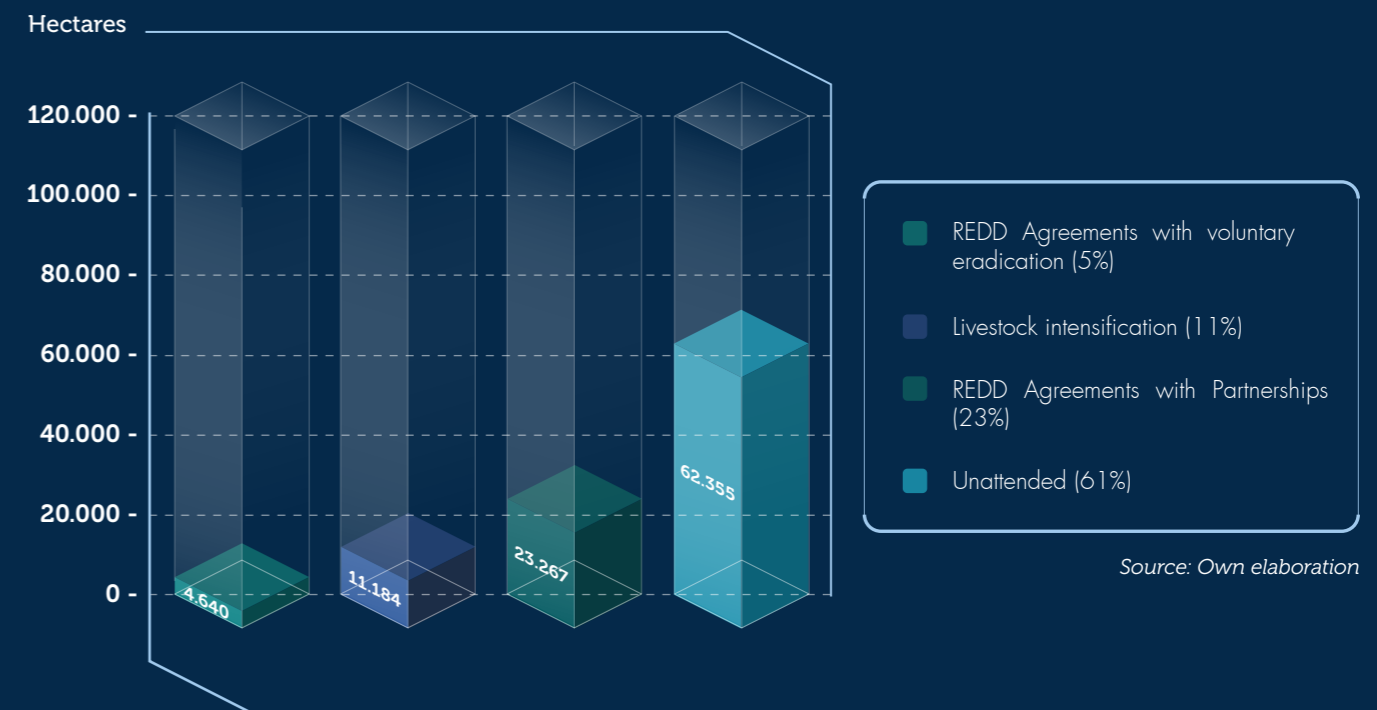
Camilo Ortega, coordinator of the REDD+ Program in Colombia at the time, recalls that, at some point in late 2010, he attended one of the first informal meetings in which Yunis and Galán began to explore the possibility of

funding from Norway. The conversation took place in the office of the Norwegian representation that was closing its headquarters in Colombia. José Yunis recalls the surprise of the officer who met with them. Not only was there no formal embassy, but environmental issues were not on the agenda for Colombia, which at the time was very much focused on peace. The officer only managed to say that he would send the application to Norway for review.

The \$ 100 million figure was becoming a mantra repeated by officers and environmental leaders in different civil society organizations. It was a very intuitive figure, constructed from scarce information, and approximating the number of hectares to be conserved, productive arrangements, and the number of families around influence of Chiribiquete National Park. In fact, a report by the Global Green Growth Institute (GGGI), the Investment Plan for a Pay for Performance Agreement for the Colombian Amazonia, to be presented in 2013, revealed that the figure was still far from what would be needed for a robust plan focused on halting deforestation throughout the Colombian Amazonia.

After an analysis of the drivers and agents of deforestation, as well as a list of interventions, GGGI analysts concluded that a figure more in line with needs would be around \$ 450 million. And even that figure would be insufficient, as they themselves warned: “With the investment plan and the respective interventions, it is expected that approximately 40% of the total deforestation in the Amazonia will be addressed, while it will continue in areas not covered by the interventions, where 60% of the region’s deforestation is located”. It was, however, an ambitious figure compared to the small budgets allocated to environmental institutions in Colombia. In fact, it would be the most ambitious plan and the most robust cooperation of that portfolio since the creation of the National Environmental System, in which \$ 200 million was invested in a mix of loans and cooperation funds in the 1990s. It is not much when compared to the \$ 330 to \$ 670 million it will cost to rebuild the famous Notre Dame cathedral in Paris after the fire that destroyed it on April 15, 2019, or when compared to the construction costs of a five-story building in New York, which can be around \$ 200 to \$ 400 million.

Hectares under conservation



Source: Own elaboration



JAVIER HUMBERTO SABOGAL MOGOLLÓN

Director of Forests and Land Use Program -
Embassy of the United Kingdom

During my time at the UK Embassy, what has surprised me most about Visión Amazonía is its ability to be a transformative program in different governments, dissimilar among them, and that, for the current government, it has become the main strategy to stop deforestation in the Amazon. This speaks well of its strength and potential.

The above is largely due to the joint work between the partner countries (Norway, Germany and the United Kingdom) and Colombia. Deforestation is the main environmental problem in the country and it is not one that can be solved in the short term due to its complexity. Hence the importance of these commitments that transcend governments and gather lessons learned, both from things that worked and things that did not.

The holistic approach of the program through five pillars has made it possible to cover a significant number of needs in the territory of the communities, as well as those of the environmental authorities and regional governments, including the national government's forest and carbon monitoring system.

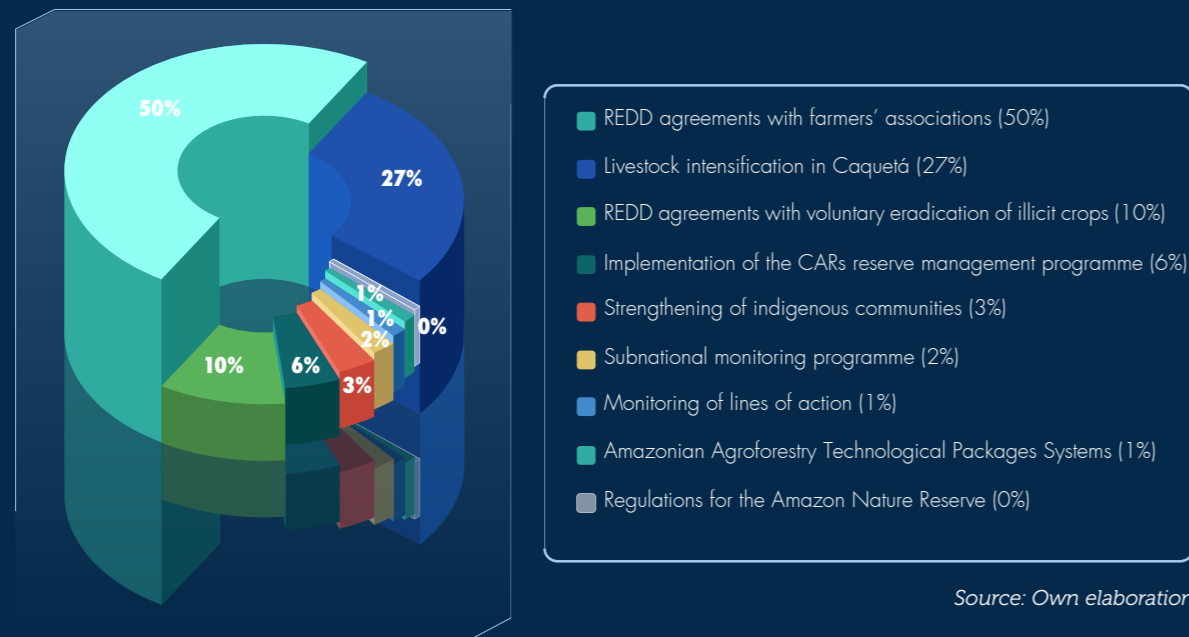
In addition, Visión Amazonía has allowed a good understanding of the problem, has key information on each of the critical points of deforestation and has defined strategies to work with the communities, who must have economic opportunities that allow them to see the forests as a way to generate livelihoods for their families. This will prevent actors who want to cut down forests from finding allies.

For the United Kingdom, it has also been an opportunity to test the REDD+ results-based payment model and gather lessons learned, challenges, bottlenecks and opportunities that contribute to new programs, not only in Colombia, but also in the region. In that sense, we are ready to continue collaborating in this initiative and we hope that many more actors from the government, the private sector, cooperation and communities will join in this effort to maintain one of the most important ecosystems not only for the country, but the for the planet. For this reason we are very excited to learn that the UK government will make an additional contribution of at least £15 million, recognizing the work and achievements of Program REM Vision Amazonia over the years.

In Remolinos del Caguán, the Nueva Ilusión Forest Development Centre is being established, where 81 families are carrying out the community forest management plan over 30,000 hectares of forest.

Photo: Laura Sáenz





Source: Own elaboration

The idea of seeking \$100 million to protect the Amazonia was reinforced in 2011 with a similar dream brought by another renowned Colombian environmentalist, Adriana Soto, who that year became Vice Minister of the Environment, along with Minister of the Environment Frank Pearl. A lawyer from Universidad de los Andes, Soto was well acquainted with the struggles and aspirations of Colombian environmentalists in their fight to protect the forests. She had begun her career in 1993 in the environmental division of the National Planning Department (Planeación Nacional), then worked alongside former Minister Manuel Rodríguez Becerra in the newly created Ministry of Environment and Sustainable Development, and during her time at the World Bank she contributed to the structuring of the first sustainable livestock project for Colombia.



When she took office as deputy minister, Soto was clear that one of her five priorities would be the Amazonia. She recalls that in September 2010 she got her hands on an issue of The Economist magazine, devoted entirely to the Amazonia biome. "Reading this report, I noticed that Guyana was also starting to emerge on the leading podium alongside Brazil, and so I wondered: what about Colombia?"

The series of articles in the magazine exuded optimism. Especially because in 2010, deforestation in Brazil had gone from 2.8 million hectares to 750,000 hectares, a milestone in this area. But more effort was still needed. Every year, about 13 million hectares of forest were cut down worldwide, an area equivalent to England. "The one notable achievement of the Copenhagen Summit", the magazine noted, "was the commitment to push REDD".

As informal talks with the Norwegians progressed, another diplomatic channel was opened that, in time, would prove to give additional impetus to Visión Amazonía. The President of Colombia, Juan Manuel Santos, and part of his cabinet made a state visit to the United Kingdom. Adriana Soto and her team made sure that the then Minister Frank Pearl had a portfolio of proposals for the protection of forests, especially the Amazonia, under his arm. "This effort to put together a

strategic portfolio also involved a major effort to gather figures and understand the strategies in place", Adriana Soto recalls. One of the most attractive ideas was to promote the expansion of Chiribiquete National Park and make it the largest protected area on the continent.

"We already had a strategy for the Amazonia biome, but it needed a lot of political backing. Having the support of the Presidency was a very important signal to the donor countries", she adds. The national strategy presented by Pearl consisted of a mix of proposals to declare protected areas, combat deforestation in others, and select areas for restoration. However, at this point it was still a fragmented strategy, without a unified vision. Andrea Guerrero, Director of Climate Change at the Ministry of the environment, and José Yunis, travelled with Pearl and the rest of the Colombian delegation to London to seek support directly.



Source: Own elaboration



As a result of the visit and all the previous efforts, several British officers became interested in collaborating with Colombia. The role of the Colombian delegation at the climate change summits, coupled with high-level political support, showed them that Colombia could be an ally in advancing forest protection strategies.


Adriana Soto entrusted Alejandra Torres with the Office of International Affairs of the Ministry of the Environment. I needed someone who knew on international scenarios and development banks. Torres at the time worked at the World Bank. One of her main tasks upon arriving at the Ministry of the Environment was to increase cooperation resources to strengthen the environmental agenda.

“My job was to coordinate delegations going to international negotiations, but also to look for new cooperation paths. Within this topic, Amazonia was always a strategic area”, recalls Alejandra Torres. Since she arrived at the office, she noticed a lot of duplication between cooperation initiatives, and a very low budgets for the size of the challenge. The annual cooperation budget hardly exceeded \$ 17 million.

The Rio +20 Conference, held in Rio de Janeiro in 2012, twenty years after the emblematic meeting that marked a vision of sustainable development at the global level, became the ideal scenario to materialize what until then were only good intentions on both sides. A few months ago, from TNC, José Yunis financed Iván Valencia’s joining Alejandra Torres’ team in the international office.

The overload of tasks and the small number of personnel linked to this unit in the Ministry of the Environment, did not allow progress to be made at a good pace. Valencia had led WWF NGO on issues related to climate change, he knew the discussions that were taking place globally around forests, so he was the right person to accompany the process of seeking funds.

“We negotiated outwardly, but we also had to negotiate a lot with all local institutions, to know what we could and could not promise. We had to start building a solid and quite detailed program, as donors were asking for more and more information”, recalls Valencia.

Norway and England were joined by Germany, which also welcomed Colombia’s interest in protecting its forests. The Germans, from the Federal Ministry for Economic Cooperation and Development (BMZ), had created the **REDD Early Movers (REM)**  program in 2011, as a strategy to reward pioneers in forest protection, climate change mitigation, and to demonstrate the potential of REDD+ through emblematic cases. The program was officially presented during the Rio +20 Conference. The Colombian delegation understood that the Germans’ intention resonated perfectly with the search for allies.

“We held several meetings in which we sat down with Norway, the United Kingdom and Germany to define and design a joint project to work for Colombia’s forests”, recalls Alejandra Torres, who also proposed presenting a project to the World Bank that would serve as a preparatory phase for Visión Amazonía.



We held several meetings in which we sat down with Norway, the United Kingdom and Germany to define and design a joint project to work for Colombia’s forests



Pablo Vieira

The initiative, called GEF Corazón Amazonía¹, fue aprobada y logró recursos por US \$10.400.000 a través del Global Environment Facility (GEF). was approved, and obtained \$10,400,000 in funding through the Global Environment Facility (GEF). The central purpose of the program was to protect biodiversity on 9.1 million hectares, by promoting sustainable land uses and working with local communities.

Since the Rio+20 talks, the process began to accelerate and take shape. Mutual interest between donors and Colombia was already clear. In 2013, another crucial ally emerged. The Global Green Growth Institute (GGGI), which was born in 2010 as a think tank to promote green growth by the South Korean government, was transformed during the Rio+20 summit into an international organization with the objective of serving as a neutral government advisor on sustainable development.

GGGI had defined its main target in Latin America as the Amazonia. Carolina Jaramillo, the organization’s representative in Colombia, knew several of the Colombian officers, and began to support them in building a concrete proposal for donors. After almost six months of work, the Investment Plan for a Pay for Performance Agreement for the Colombian Amazonia was born. The document

summarized the causes and drivers of deforestation, identified possible interventions and proposed an investment plan. The investment portfolio was divided into four categories: improving governance, agreements for sectoral sustainability, improving sustainable licit productive activities and strengthening the participation of indigenous communities.

For Camilo Ortega, coordinator of the REDD+ program at the Ministry of the Environment, the big problem they faced “was how to make people realize that in this diversity of actors, they all had a common goal. Kevin Hogan, who had been an advisor to the Government of Guyana during the negotiation with the Norwegians, came up with an idea: to call the whole effort “Visión Amazonía”

Camilo Ortega believes that the adoption of the name “Visión Amazonía” gave it a clearer identity. The REDD+ Readiness Plan or RPP that they were formulating since 2010, already established the broad guidelines for deforestation control. Thus, this process, together with the inputs elaborated jointly by national institutions with the help of GGGI, formed the first concept note to be presented to Norway, England, and Germany. The Climate Change Summit in Warsaw at the end of 2013 was the stage to finally bring everyone to the table and define a common path.

Colombia, the United Kingdom, Germany and Norway aim to stop deforestation in the Amazon by 2020



SUSTAINABLE DEVELOPMENT - SOIL
Subcategories: Multi-stakeholders, Forests and nature reserves, Desertification, land degradation and drought
Source: Ministry of Environment and Sustainable Development

This article has been consulted: 247 times

Publication date: December 09, 2013

Colombia, with the support of the United Kingdom, Germany and Norway, seeks to stop the loss of forests in the Amazon by the year 2020. This as a mechanism to counteract emissions from deforestation.

The political commitment of these countries to this objective is one of the main achievements obtained by the country, within the framework of Session 19 of the Conference of the Parties (COP 19) held in Warsaw (Poland), as a result of

the advanced strategies across the country in search of low carbon development.

On the other hand, COP19 produced a package of decisions called the “Warsaw Framework for REDD+”, which completes the design of the methodologies and financing provisions so that developing countries are remunerated once they demonstrate reductions in deforestation.

The four countries signed the following joint declaration, with the presence of the Vice Minister of Environment and Sustainable Development, Pablo Abba Vieira Samper; the German Minister for the Environment, Nature Conservation and Nuclear Safety, Peter Altmaier; the Norwegian Minister for Climate and Environment, Tine Sundtoft; and the UK Secretary of State for Energy and Climate Change, Edward Davey.



Consult

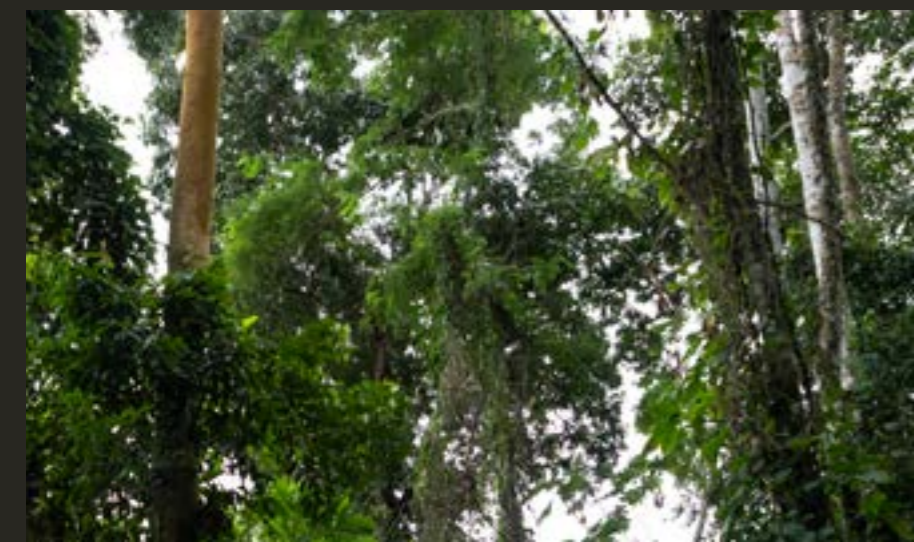


¹ Website of the GEF Heart of the Amazonia program. Patrimonio Natural.
<https://www.patrimonionatural.org.co/proyectos/conservacion-de-bosques-y-sostenibilidad-en-el-corazon-de-la-amazonia/>



With the completion of the rubber processing plant in El Retorno, Guaviare, the ASOPROCAUCHO Association developed a line of glues for school and office use that is free of toxic substances. An innovation that seeks to expand its market.

Photo: Emilio Aparicio



Chapter

4

The lesson of Brazil

VISIÓN AMAZONÍA
REM Program







Augusto Angel Maya Award

Visión Amazonía REM program and the University of Amazonía received the Augusto Ángel Maya Award from the District Secretary of the Environment on January 26, 2022 in the city of Bogotá.

Escuela de Selva (Jungle School) is the first environmental education program that involved peasant leaders in the villages with the highest deforestation rates in the Colombian Amazon, with the sole objective of empowering them with knowledge to strengthen environmental governance in their territory. It was an environmental education strategy that in its first phase involved 600 peasant leaders and graduated 740 as “Community Forest Managers” because it attracted the attention of other family members who were interested in learning about sustainable forest management, the protection of natural heritage, the defence of strategic ecosystems and the recognition of the role of forests in the conservation of life.

In addition to the peasant leaders, institutions, professors, researchers and strategic allies participated in the course, which supported

the participatory construction of plural Amazonian visions that help to understand the forest as a subject of rights and an agent of sustainable economic opportunities.

The award publicly recognized the achievements of the Ministry of Environment and Sustainable Development, through the Visión Amazonía REM program and the University of Amazonía. According to the Secretariat, these community environmental education processes have had an impact on territorial environmental transformation, because they have led to new logics of public management and empowerment of the territory.

The award has also been a great stimulus to develop two phases to be financed with REM II resources, now involving young people between 14 and 28 years of age in the region and whose call is about to be announced, and also linking farmers who have committed to transforming their territory from active deforestation hotspots to Forest Development Nucleus, a national commitment to control deforestation in the Amazon.



In the Peregrinos lagoon complex in Solano, Caquetá, peasant communities are developing a nature tourism project that includes water mirrors, hiking, bird watching, tree climbing and much more.

Photo: Héctor Suricata

Considering a plan to halt deforestation in Colombia inevitably involved learning from Brazil's lesson. In January 2003, Brazil's newly elected president, Luiz Inácio Lula da Silva, appointed Marina Silva to head the Ministry of Environment. In the years that followed, she would be responsible for demonstrating to the world that deforestation was not an inexorable fate for the Amazon. As a child, Marina Silva worked as a rubber tapper in the Amazon rainforest and spent her youth fighting against deforestation, alongside environmental activist Chico Mendes.

Brazil's Amazon region originally comprised more than half of the country's total territory, some five million square kilometres. An area larger than the entire European Union. However, by 2003, only 3.5 million square kilometres remained. As in other Amazonian countries, logging, cattle ranching and agriculture (mainly soybean cultivation), mining, hydroelectric dams, urban expansion and road construction were the main drivers of deforestation.

The Brazilian state itself had been responsible for deforestation. As reported by Rachel Jackson, in a paper for the University of Prin-

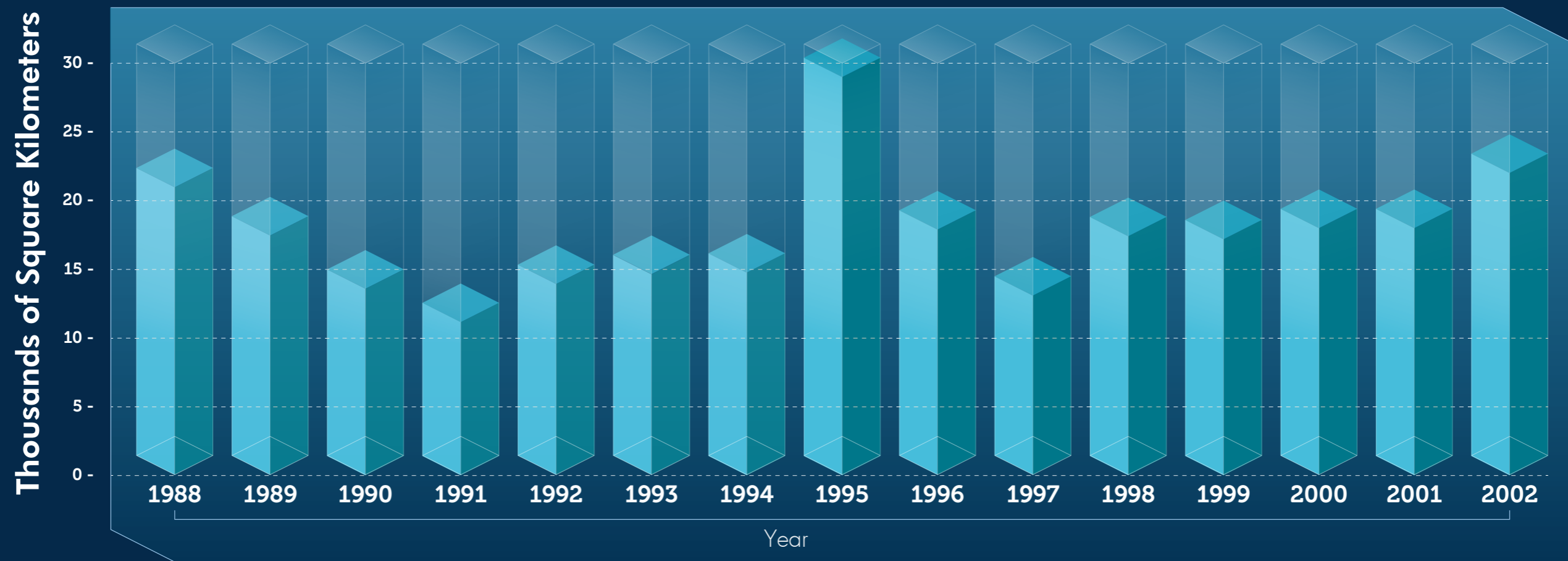
ceton¹, in which she analysed the case of the fight against deforestation in Brazil. In the 1970s the military government encouraged citizens to migrate to the Amazon in an attempt to alleviate land conflicts. At that time the government offered land titles to those who cleared at least 50% of the property. Thousands of Brazilians followed the instruction, although the colonization process ended up generating a market of false titles. Brazilians invented a word for them: grileiros. A grileiro was someone who took possession of a piece of the Amazon with a forged title or deed. To give the appearance of an ancient document, the forgers usually left the paper

in a drawer full of insects and waited for it to become yellowed and slowly deteriorate.

The first good moves

One of the first steps taken by Marina Silva was to convene a meeting of scientists and civil society representatives in June 2003 to examine deforestation in the Amazon. She then convinced President Lula himself to take the problem to the presidential palace and sign a decree creating a permanent inter-ministerial working group to implement a plan to combat deforestation in the Amazon. "The insistence on coordination between ministries

Annual Deforestation in Brazil, 1988 - 2002



Source: Program to Calculate Deforestation in the Amazon, Brazilian National Institute for Space Research (INPE)

was a break with the federal government's previous deforestation policies, which had been the exclusive responsibility of the Ministry of the Environment," Jackson said.

Prevention and Control of Deforestation in the Legal Amazon, with more than one hundred actions and objectives. In the short term, strategies focused on expanding the number of protected areas and command and control policies aimed at improving monitoring and enforcement of existing laws. In the medium term, the focus was on strengthening cooperation between federal agencies and state and local governments and on stopping existing economic incentives that encouraged deforestation. In the long term, the plan included building more sustainable production chains and encouraging agricultural intensification, rather than expansion.

"The most successful element of this strategy, was that it was coordinated by the highest government institution in the country," said one of the officials interviewed by Jackson. "Deforestation was no longer a problem attributed solely to the Ministry of Environment, but a problem for the federal government".

The importance of monitoring

As would be demonstrated in many other countries in the following years, including Colombia, one of the most important tools in the fight against deforestation is to have a robust monitoring system. Brazil built its own through the Federal Space Agency. The Real Time Deforestation Monitoring System was based on NASA satellite imagery and began to produce deforestation data in a short period of time (15 days) and was able to work on a spatial scale capable of detecting plots of a few hectares.

Another battle front on which Marina Silva and the federal government concentrated their efforts in the first phase was internal corruption in institutions such as the offices of IBAMA - Brazilian Institute of Environment and Renewable Natural Resources and the environmental secretariats in some Amazonian states. From 2004 to 2008, the federal

government arrested more than 600 officials who had committed environmental crimes.

"As internal corruption was combatted, Ibama began to work more closely with the Federal Police, the Federal Highway Police and the Army. The team identified the nine worst hot spots in the deforestation arc and established bases of operations in those areas", Jackson explained. From 2000 to 2003, Ibama issued an average of US \$206 million annually in fines for illegal deforestation; in 2004 it imposed approximately US \$257 million in fines and in 2005 the total was US \$722 million.

In addition to the meticulous monitoring of forests and the fight against internal corruption, there was also pressure on industrialists. The main strategy was public outrage. In 2006, Greenpeace published a report entitled **Eating Up the Amazon**, in which it showed that companies such as Cargill and McDonald's were the final recipients of products grown on deforested lands².

Fearing punishment from their own consumers, many companies agreed to collaborate and monitor the origin of their purchases. The same strategy was applied in 2009 to the cattle industry, when Greenpeace published another report, *Slaughtering the Amazon*. As a result of that public scorn, Brazil's four largest slaughterhouses agreed to a moratorium on cattle raised on illegally deforested land.

Everything seemed to be going according to plan. But reality turned out to be more obstinate than expected. In early 2008, Silva and her team noticed that the dynamics of deforestation were shifting from large affected areas to small-scale deforestation of less than 100 to 200 hectares. Despite this, they continued the pressure, especially in the most deforested municipalities. In each municipality, properties with illegal deforestation were seized, access to agricultural subsidies was cut off and the sale of these properties or products produced there was prohibited, the owners could be publicly identified, and tractors, chainsaws and other equipment could be seized, disabled or destroyed.



Eating Up Th Amazon. Informe de la ONG Greenpeace. 2006.

However, despite the success achieved, Marina Silva's resignation from the Ministry of Environment shook Brazilian politics in May 2008. In her resignation letter she mentioned "the growing resistance to our team in important sectors of government and society".

The well-known environmentalist, Carlos Minc, replaced her with the obligation to continue pressuring deforesting states and municipalities. Extra help came along the way. In 2009, the Norwegian government committed to donate some US\$ 1 billion to strengthen the fight against deforestation.



The Amazon Fund, into which the money was injected, was used to support state governments in setting up their own plans against deforestation.

Unfortunately, with the change of power in Brazil and the election of Dilma Rousseff, the government began to lose ground. Rousseff, after all, achieved her electoral majority by making a pact with rural groups that benefited from agribusiness in the Amazon. On the one hand, there was an amnesty on fines for any illegal deforestation before July 2008 and continued

cultivation was allowed on land deforested before that date. It was not all bad, as Jackson recalled in his essay, environmentalists recognized the importance of establishing mandatory registration for rural properties throughout the country, which allowed for better monitoring.

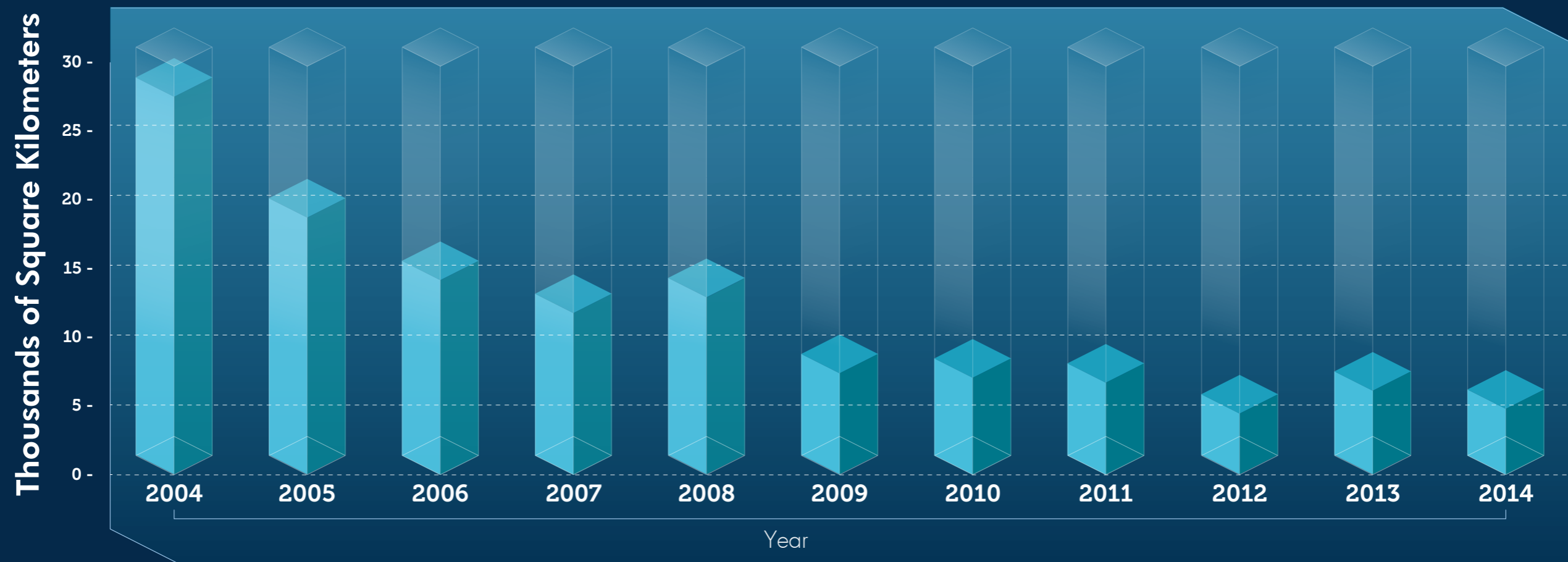
Beyond all these setbacks and political changes, Brazil's action plan against deforestation made it clear that it is possible to stop this phenomenon and protect the Amazon: from 2004 to 2014, annual deforestation was reduced by 75%.

Unfortunately, the case of Brazil also shows how vulnerable the Amazon is to the politics of the moment. Under the government of Jair Bolsonaro, the Brazilian Amazonia once again experienced high rates of deforestation. In November 2021, the [National Institute for Space Research \(INPE\)](#), (an entity responsible for the promotion and execution of scientific studies and research, technological development and the execution of operational activities in the fields of space and atmospheric science) reported that the Amazon lost 13,235 square kilometres of vegetation

cover, between August 2020 and July 2021. An equivalent to almost 17 times the size of New York City. This is the largest area degraded in the Amazon rainforest in a 12-month period for the last 15 years.



Annual Deforestation in Brazil, 2004 - 2014



Source: Program to Calculate Deforestation in the Amazon, Brazilian National Institute for Space Research (INPE)



The monitoring missions carried out by Germany, the United Kingdom and Norway allow us to accompany the actions in the territory of Visión Amazonía REM program.

Photo: Janeth Bougard



Chapter

5



A four-way
negotiation

VISIÓN AMAZONÍA
REM Program





Administrative and Financial Team. In this photograph: Angelis Cano, Néstor Ortíz, the General Coordinator of Visión Amazonía REM program José Yunis Mebarak, Jennifer Chaín and the International Advisor Marnix Becking.

Photo: Héctor Suricata

The 2014 was a crucial year for the consolidation of Visión Amazonía. It was already clear that Colombia, Germany, and Norway would work together under the REDD Early Movers (REM) program, but it was not clear how to do so. England continued to keep its interest open through Sean Frisby, its officer in London, who had been working to strengthen Colombia's Ministry of Agriculture on agricultural production and climate change issues. So, the teams on both sides intensified planning meetings.

"That year we met regularly every Wednesday from 8:00 a.m. to 11:00 a.m.", recalls Iván Valencia, by then an advisor to the Ministry of Environment. At the beginning, the different objectives among donors made dialogue difficult, to the point that they had to first align their positions. This was a decisive step, because Norwegians agreed to simplify the process and handle everything through the Germans, a cooperation that enjoyed great capacity in Colombia, thanks to its cooperation agency, the GIZ, but also because of the experience accumulated in the KfW bank in programs against deforestation in Brazil.

Christiane Ehringhaus, who had worked in Brazil on the Amazon Fund and the first REM program, was charged with leading the negotiation as KfW's advisor. "Colombia's leadership in international summits facilitated the negotiation", he says. In 2014 Christiane Ehringhaus landed in Colombia as part of the Evaluation Mission that met with Colombian officers between September 25 and October 1, to work out the broad outlines of the negotiation. Her first impression was not a good one: "What they were presenting to us was all very hypothetical, it was like a desk proposal, and we needed ongoing initiatives, and that these could absorb the resources in the nearer term".

As this was a pilot program, and given everyone's inexperience in this type of negotiation, the panorama of issues to be resolved was overwhelming. María Claudia García, then Director of Forestry at the Ministry of the Environment, who later became Deputy Minister of Environment during the begin-

ning of Visión, still remembers the long list of questions they addressed: What is the geographic region where the program will be located? If this is a program that is paid for against reduction in deforestation, what is the benchmark for comparison of that reduction? How is this reduction to be measured: per ton of CO₂ or per hectare? How much carbon content was recognized in the forest, considering that Colombia did not have a forest inventory? How is money managed? What verification mechanisms are established?

These were not easy conversations. Pablo Vieira, deputy environment minister between 2013 and 2016, says European teams were used to looking to countries like Brazil and Indonesia, where deforestation drivers are clear, identifiable, and much easier to monitor, because they are based on large-scale agribusiness. "From the beginning, we made it very clear to them that in Colombia the fight against deforestation was a social, economic and even illegal challenge, because there are such complex dynamics as the displacement of people and coca plantations. They began to understand that this was the reality of Colombia and they had to be more flexible".



within the government and in the ministries of Mines, Transport and Agriculture. There was disinterest in the Ministry of Agriculture. I believe that the environmental narrative in Colombia graduated the agricultural sector as the enemy, and the agricultural sector also graduated the environmental sector as the great threat. This resulted in an institutional culture that made it difficult to reach agreements. It was necessary to build trust with many of these actors.

“

What they were presenting to us was all very hypothetical, it was like a desk proposal, and we needed ongoing initiatives, and that these could absorb the resources in the nearer term

”

Christiane Ehringhaus

Paradoxically, the main difficulties of the talks that year were not precisely with the cooperating countries, but with other State agencies. "It was a very hard fight within the State itself, because the Ministries of Agriculture and Mines and Transport did not pay enough attention. If you look at the National Infrastructure Agency's map of Colombia, it is only roads; if you look at the Ministry of Mines' map, you only find mining titles and hydrocarbon projects", Vieira recalls.

María Claudia García retains a similar impression of her colleagues in other entities, especially the Ministry of Agriculture, which was a key player in this effort: "At one point, the Ministry of Agriculture did not return to any meetings, and it was left to the Ministry of the Environment to negotiate the program".

Luis Gilberto Murillo, former Minister of the Environment, who was at the beginning of the implementation of Visión Amazonía, referring to the difficulty in state management and coordination, recalls: "We had contradictors



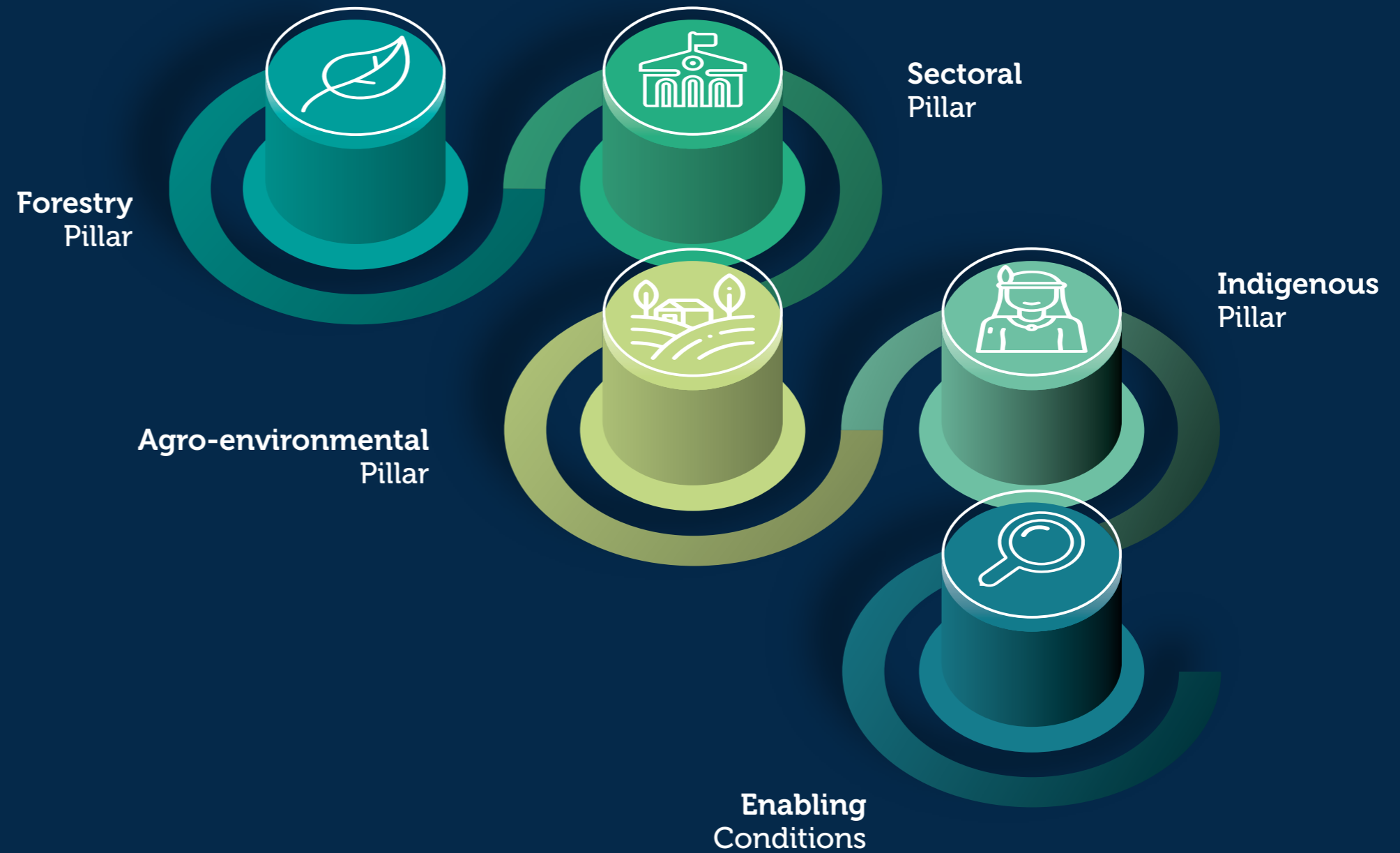


Despite the stumbling blocks, negotiations were moving forward. During that week in September 2014, the German-Norwegian Joint Assessment Mission¹ received the results of the feasibility study conducted by [Climate Focus consulting firm](#) and [Fundación Natura](#). The conclusions of that week of intense meetings were recorded in an 18-page Memorandum of Understanding, which agreed on a REM program for Colombia, which would last four years and in which compensation for reducing deforestation would be paid on an annual basis.

It was agreed that financial resources could be used in five components, from which the five pillars on which the entire program was structured were born:

- a) Forest Governance;
- b) Sectoral Agreements;
- c) Agro-environmental Production Systems and Agreements with Farmer Associations;
- d) Agreements with Indigenous Communities;
- e) Enabling conditions, including the Forest and Carbon Monitoring System, National Forest Inventory, communications, and operability.

Visión Amazonía and its Pillars



Source: Own elaboration

¹ Evaluation Mission. Minutes of Agreements. GGGI Archive. October 2, 2014.



Green Credits receives recognition from the Banking sector

Green Credits, a financial instrument designed to finance sustainable productive activities and preserve the forests of the Amazon, received from Asobancaria the award “bringing the banking sector closer to Colombians” in the category “let’s take care of our planet”.

The award was presented by President Gustavo Petro Urrego, who since taking office has been a standard bearer for the conservation of the Amazon and a leader in the fight against climate change.

The Agrarian Bank and the Ministry of the Environment and Sustainable Development, through the Visión Amazonía REM program, signed an agreement that allowed the design of this green financial instrument to favour small producers in the Colombian Amazon who were willing to preserve their forests.

A total of 1,064 families benefited from the conservation incentive, since 50% of the value of the credit was credited to the account of each of the families that signed and complied with the conservation agreements, thus protecting 15,600 hectares of Amazonian forest.

The green credits were prioritized in the departments of Caquetá, Putumayo, Guaviaro and southern Meta, reaching the municipalities and villages with the highest deforestation rates.

Credit amounts per family were capped at \$24'000,000 and the maximum term was up to 15 years.

The conservation incentive was credited to the debt with the bank after 7 months. For this, the farmers had to follow the technical assistance plan, keep the credit up to date and comply with the conservation agreements. This work required the articulation between the rural extension workers of Visión Amazonía, the Agrarian Bank and the Forest and Carbon Monitoring System of the country, the latter following up on the coordinates of the protected forests by satellite.

A total of \$17.6 billion pesos in this first stage supports the national strategy to fight deforestation in the Colombian Amazon.



Norvey Rojas is a young man from Guaviaro, a volunteer firefighter and tour guide who, together with his parents and siblings, changed cattle ranching for nature tourism, since in the backyard of his house is Cerro Pinturas, 1200 square meters of cave paintings dating back 12,000 years.

Photo: Héctor Suricata

One of the most sensitive aspects of the negotiation had to do with the parameters under which deforestation was to be measured. At that time Colombia did not have a clear reference level of deforestation emissions (NREF in Spanish) for the Amazonia, and the team promised to present one by December 2014.

In the meantime, it was proposed to use the historical average of gross deforestation in the Amazonia during the 2000-2012 period as a reference level, which was equivalent to 82,883 hectares per year. It was agreed

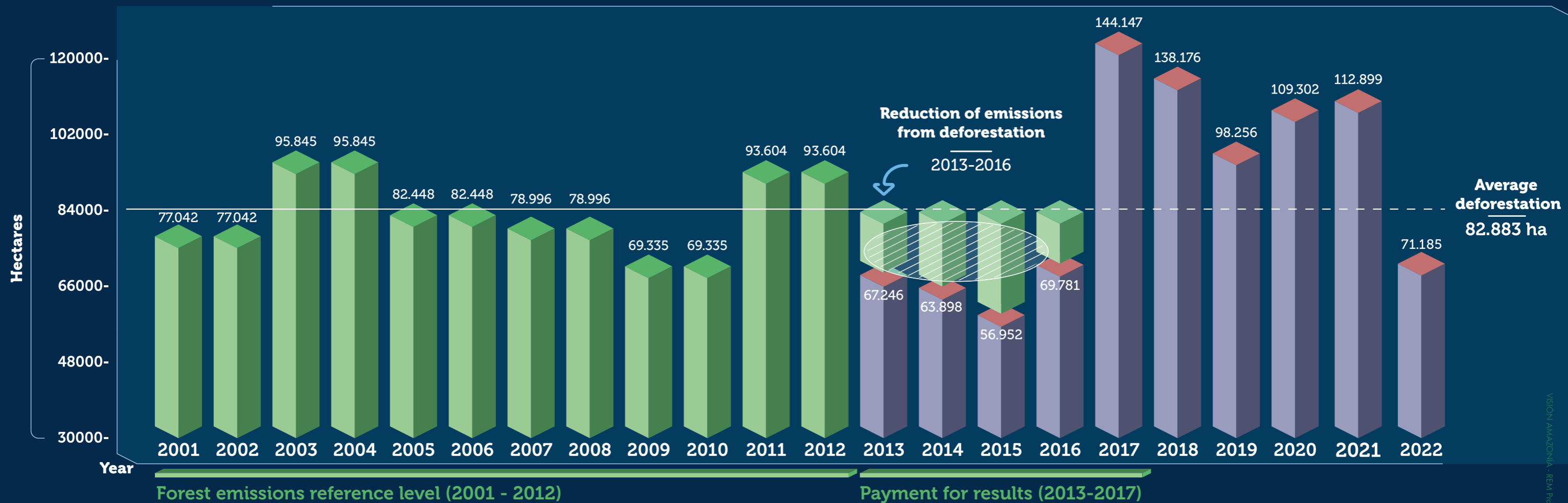
that the years of payment for results in reducing deforestation would be the 2013-2017 period.

As for the other important variable, the carbon emission factor for the Amazon forests, it was established to be around 566.76 carbon tons. Finally, the price of equivalent CO₂ eper ton was agreed at a value of \$ 5. "There was a very big debate to agree on the price to be paid per ton", says Iván Valencia, and it was agreed that the annual disbursement of money would depend on the difference

between each year's deforestation emissions from 2013 to 2017 and the reference level. In other words, payments would be made depending on the results, i.e., the number of not emitted equivalent tons, which would be calculated by the number of hectares reached below the historical line of 82,883. Colombia committed that for each emission reduction remunerated by the REM program, the country would contribute with another similar emission reduction, but without remuneration, given the estimated investment risk.

Verification of emission reductions from deforestation would be carried out by an independent third party, and external financial and technical audits under international standards were established for the program.

Payment for results scheme



Source: Own elaboration



One myth that the negotiators, even within sectors of the government itself, fought against, was that this was not a classic carbon market. In the final minutes it was made explicit that the parties agreed that remuneration for emission reductions was not equivalent to a purchase or commercial transaction, and that signatory countries would not use the remunerated emission reductions either to offset their own emissions or to trade emission permits to third parties.

The fear of money getting caught up in bureaucracy led to the establishment of rules. At least 60% of the contribution would be used to directly benefit the populations in the intervention areas (benefits and investments at the local level). The remaining 40% could be used to implement enabling actions or policies to reduce deforestation, such as the REDD+ Activities Registry and the Forest and Carbon Monitoring System, intersectoral policies for transportation, energy, agriculture, land use planning, institutional strengthening of ministries, regional environmental authorities and national parks, the environmental and land use planning model for the Amazonia, information and monitoring of safeguards, REM's operational structure, that is, those activities that help reduce deforestation, but from an institutional point of view.

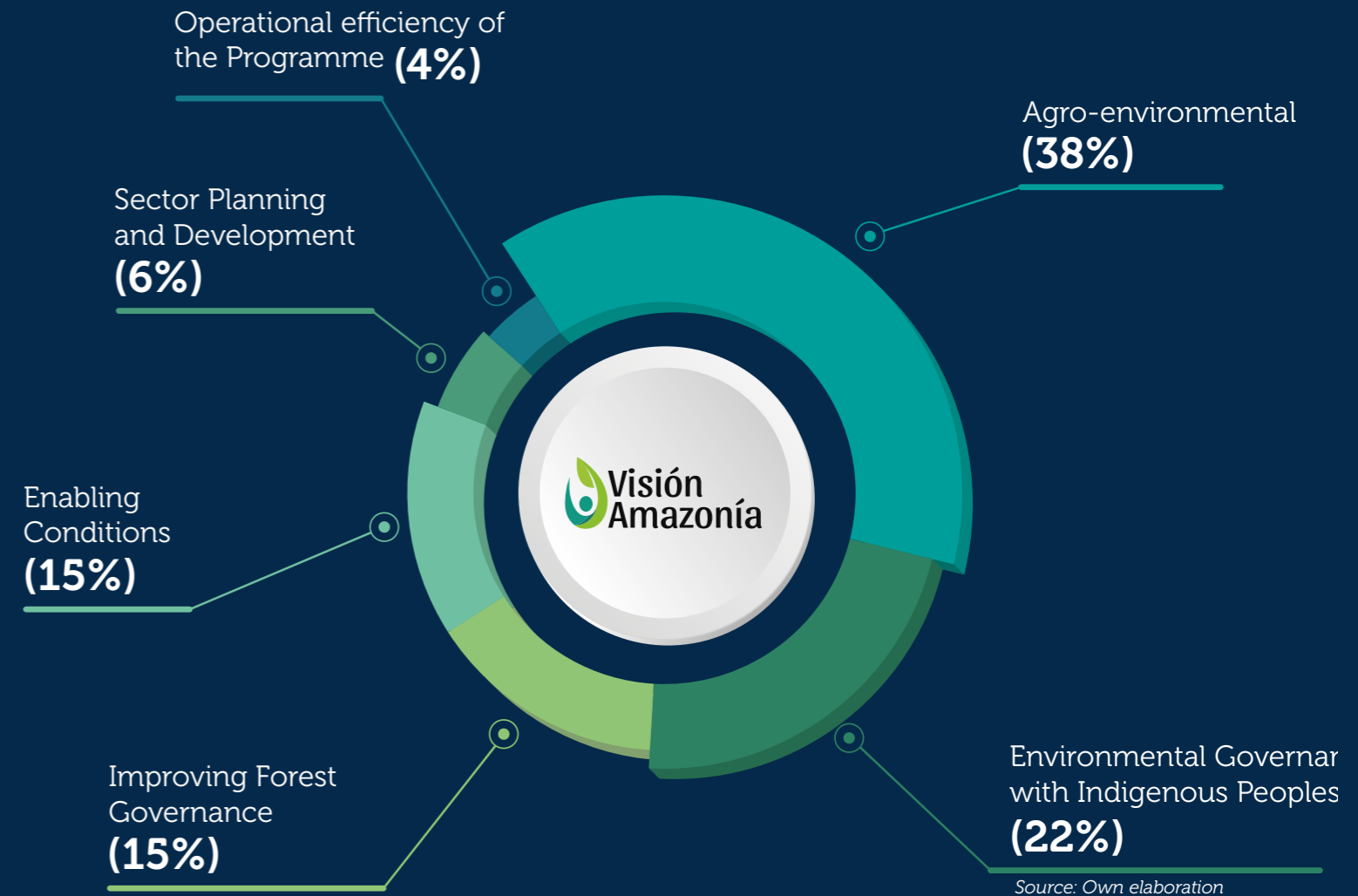
Another criterion imposed was to work with a "stock and flow" approach, that is, to create incentives for activities to reduce deforestation ("flow") and activities to protect existing

forests ("stock"). "This point is not minor, and speaks well of the agreement, because it signals that the program will work not only with those who cause deforestation directly, but with those who have conserved the forest, sending a clear message about the distribution of benefits and comprehensiveness of the action", reflects José Yunis.

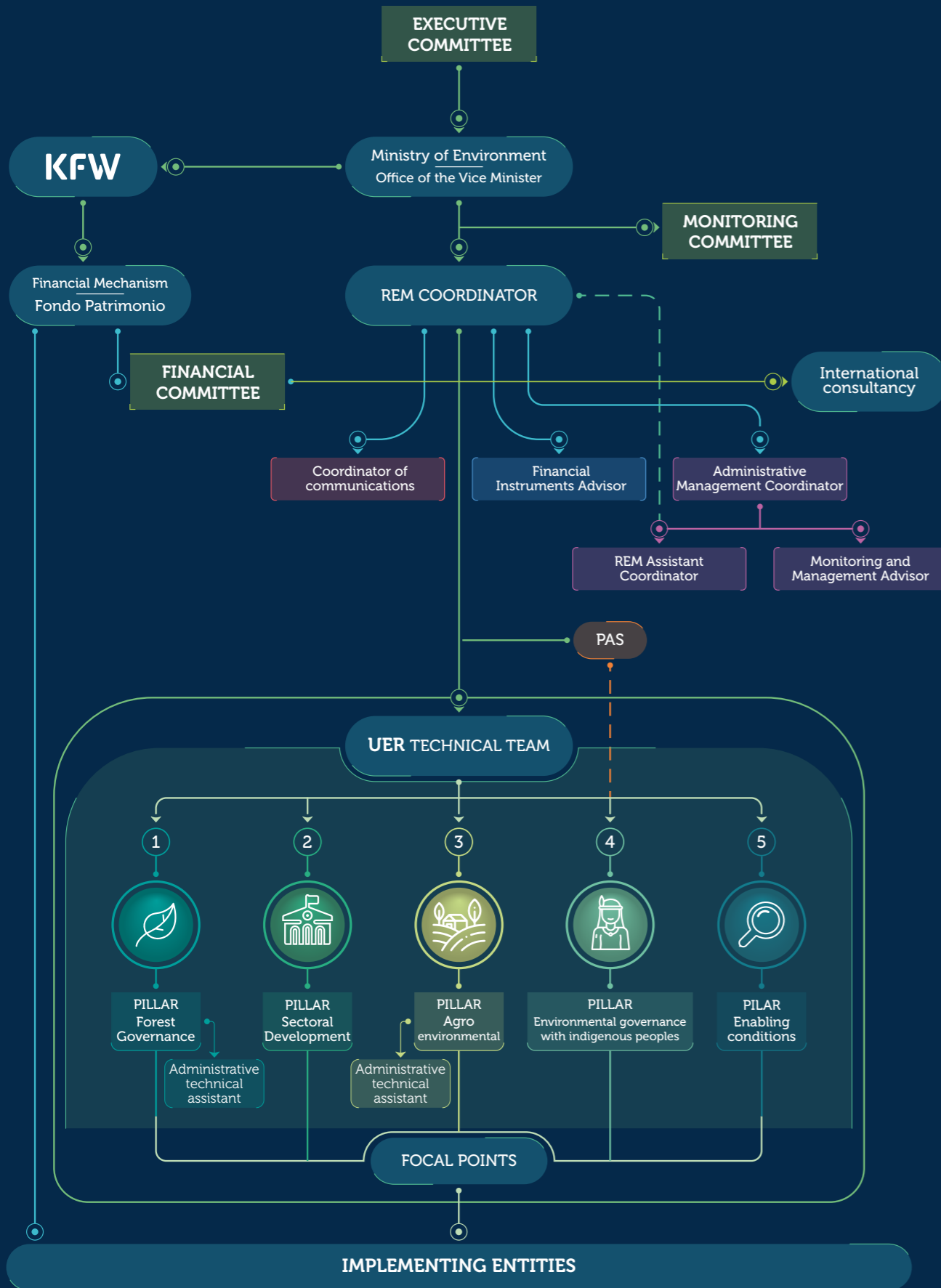
In addition to avoiding a possible capture of financing in administrative matters, another common fear was to avoid possible double counting, i.e., that tons that parties had mutually agreed to deactivate would be traded a second time. To avoid this, it was agreed to create the National REDD+ Registry System, to identify remunerated emission reductions and avoid re-reporting them in order to access to more funds. It also called for the creation of a mechanism to address "leakage", to warn if deforestation avoided in one place moves to another area of the country.

Regarding the governance scheme, it was agreed to create an Executive Committee and an Implementation Unit. This unit, agreed at the last minute and reluctantly, although it would prove to be essential in the direction and implementation of the program, would consist of a coordinator and a technical support team within the Ministry of the Environment to assist in the coordination of action with the Ministries of Agriculture and The Interior, Sinchi Institute, IDEAM, Natural Parks, the autonomous corporations and the Amazon Regional Roundtable (MRA in Spanish)², as well as the actions of the implementers.

REM Benefit Sharing



² Decree 3012 of 2005. <https://opiac.org.co/documentos/normatividad/227-decreto-3012-de-2005>.



Source: Own elaboration

Who would manage the money? This was another of the hot points of the negotiation. KfW expressed its preference for a private fund. The Colombia team wanted a new public fund to be created. After reviewing several options for public and private mechanisms, including the World Bank and the Inter-American Bank, it was agreed to promote the installed capacity in Colombia through a public bidding process, in which several pre-selected national mechanisms participated and which was eventually won by Fondo Patrimonio Natural, a private entity, which was created as part of the financial strategy of National Parks for the conservation of nature in Colombia, and whose board of

directors includes members from public and private entities.

Another requirement was to prepare an annual report on safeguards and to socialize the decisions made with the communities, the NGO REDD+ Roundtable, the Amazon Regional Roundtable - MRA, the Amazon Indigenous Environmental and Climate Change Roundtable - MIACC, among other relevant regional organizations. Christiane Ehringhaus recalls that participation of the indigenous communities in the program was a very important point of the negotiation: "We all wanted a process that respected the rights of the indigenous people. We negotiated this point in minute detail".

Photo: Wilmar Mogollón



The Amazon Regional Roundtable is a political space for concertation for the implementation of public policies for sustainable development between the indigenous peoples of the Amazon and the Colombian government.



Safeguards, better to be safe than sorry

At the Climate Change Summit held in Cancún in 2010, seven socio-environmental safeguards, the “rules of the game”, were adopted to ensure a positive impact of the REDD+ strategy. Following this mandate, in 2015, Colombia managed to structure its National Environmental and Social Safeguards System (SNS in Spanish) and also designed a Safeguards Information System (SIS in Spanish)³.

The REM Visión Amazonía Program was the first REDD+ initiative to apply this safeguards framework in the country, and developed a tool called “Integrated Socio-environmental Risk Management (Girsa in Spanish)”. “Girsa aims to provide tools to

analyse and prevent, mitigate or reduce risks related to the implementation of its actions in the different pillars of Visión Amazonía”, explain Paola Quiroga, REM safeguards specialist, and Marnix Becking, senior international advisor to the program.

Tools developed by Girsa are applied in each disbursement investment planning cycle, and the results are incorporated into the program’s annual reports. In addition, safeguards management is reflected in permanent actions, such as capacity building, participation events, dissemination and the PQRS mechanism, through which any citizen can send his/her opinions and concerns.



Colombian President Juan Manuel Santos (sixth from left) with Erna Solberg, Prime Minister of Norway. Image credit Presidency of Colombia

The negotiation process around Visión Amazonía was symbolically concluded in a hotel near the Eiffel Tower in Paris during the 2015 Climate Change Summit. “That 2015 photo hides a year and a half of work, approximately, every day non-stop”, comments María Claudia García.

A tragic event marred that happy moment: Ignacio Gómez, who had accompanied the structuring of Visión Amazonía, died in a sports accident that same month.

³ Fourth REDD+ safeguards information summary. https://redd.unfccc.int/files/ris_iv-colombia.pdf



José Yunis Mebarak, General Coordinator of Visión Amazonía REM Program and Sean Frisby, Deputy Head - UK International Forests Unit, 2019

Photo: José Yunis Mebarak



PAOLA XIMENA QUIROGA SANABRIA

Consultant in risk management and socio-environmental safeguards

RISK MANAGEMENT AND SOCIAL AND ENVIRONMENTAL SAFEGUARDS IN THE REM PROGRAMME

The REM Programme is the first initiative of the National Government to develop its own Integrated Socio-Environmental Risk Management System [Spanish acronym GIRSA], which aims to provide a tool that facilitates the identification, analysis and decision-making regarding the management of risks that may be generated by the implementation of different actions.

In 2017, with the support of UN-REDD, GIZ and the International Advisory of the REM Programme, the design of the GIRSA was initiated based on two previous exercises carried out in Colombia by UN-REDD and GIZ respectively: i) Interpretation of safeguards through a multi-stakeholder participatory process that began in 2013¹ and ii) Values and risks analysis for the definition of social and environmental safeguards for REDD+ in Colombia².

As part of the national REDD+ process, the government formulated a methodology and critical path to collect inputs from a wide range of stakeholders related to the potential social, environmental and institutional risks and benefits of REDD+ implementation in the country, which were the basis for the Strategic Environmental and Social Assessment (SESA) of REDD+, which was developed as part of the construction of the REDD+ Readiness Preparation Proposal (R-

PP) document in Colombia. GIZ supported the development of the process and the documentation of the results, finding that the risks mentioned by the different groups of stakeholders referred to a wide range of issues but were classifiable into generalized categories. In order to incorporate the results into a common conceptual framework, some basic categories were identified from the review of the concept of risk and the conceptual frameworks of Livelihoods and Rights-Based Approach. It was identified that the most common issues in REDD+ implementation referred to some basic categories of a set of 40 risks. Later on, it was proposed to adjust the analysis tool to identify 10 “fields” of risk to guide the analysis in a more open way to capture local perspectives, and on this basis, the GIRSA Tools were structured

For the construction of the GIRSA, within the framework of the National Safeguard System [Spanish acronym SNS], in accordance with the Cancun Safeguards and the respective National Interpretation, other documents were also taken into account: the KfW Sustainability Guidelines, Environmental, Social and Climate Performance Assessment: Principles and Processes; the Guidelines on the incorporation of human rights standards and principles, including gender, in proposals for bilateral agreements of GIZ; and the Socio-Environmental Manage-

ment Framework of the World Bank. Tools were developed to assess compliance with the national legal framework and for analysis at Programme and Pillar level. The first exercises were carried out with the EBU assessing the interventions of each Investment Plan.

The analyses, which include social, environmental, cultural, economic, sustainability and political-institutional aspects, are carried out from the design phase of the intervention and during the implementation process; likewise, each case is monitored periodically to identify variations in the planned scenarios and opportunities for adjustment. Additionally, the management of safeguards in REM is reflected in permanent actions such as capacity building for different actors, participation and dissemination events, and in the PQRS mechanism.

The original GIRSA, generated in 2018, has had adjustments over time, which have enabled it to be managed in a manner appropriate to the contexts emerging with the implementation of the Programme’s interventions: The legal framework that has emerged has been incorporated into the guidelines for the checklists; the tools and methodologies have been adjusted to enable a broader base of participation in the exercises; an example of this is the development of differential tools for risk identification in

indigenous and peasant communities, developed within the process of accompaniment that ACT [Amazon Conservation Team] has carried out for Indigenous Peoples’s Pillar [Spanish acronym PIVA] projects.

The challenges faced by the management of socio-environmental safeguards in the Programme are growing, taking into account the speed of change in the context in which the activities are developed; factors such as the security conditions of the region, the social and organisational dynamics of the partner entities, the incorporation of new professional teams to the interventions, make it necessary to have an increasingly dynamic management framework, which makes it possible to address the different scenarios, in addition to identifying, documenting and avoiding or mitigating emerging risks.

In order to address these challenges and implement REM 2, a comprehensive Environmental and Social Management Framework (ESMF) has been developed. This framework is built upon the national regulatory framework, the Cancun Safeguards and international standards regarding socio-environmental management; furthermore, this ESMF incorporates the extensive learning curve gained from the experience of REM 1 in this field, which largely serves as an assurance of its effectiveness.

¹Camacho, A. (2016). Social and Environmental Safeguards for REDD+ in Colombia. Bogotá: UN REDD Programme Colombia.

²GIZ. Aura Robayo, Tatiana Mendoza, Julián Castro, Analysis of values and risks for the definition of social and environmental safeguards of REDD+ in Colombia.



ACICATCH Amazonas, (The Zonal Association of Indigenous Councils and Authorities of La Chorrera), has an environmental management plan for the territory, a document built in a participatory manner with the indigenous peoples in a PIVA project with the support of WWF Colombia.

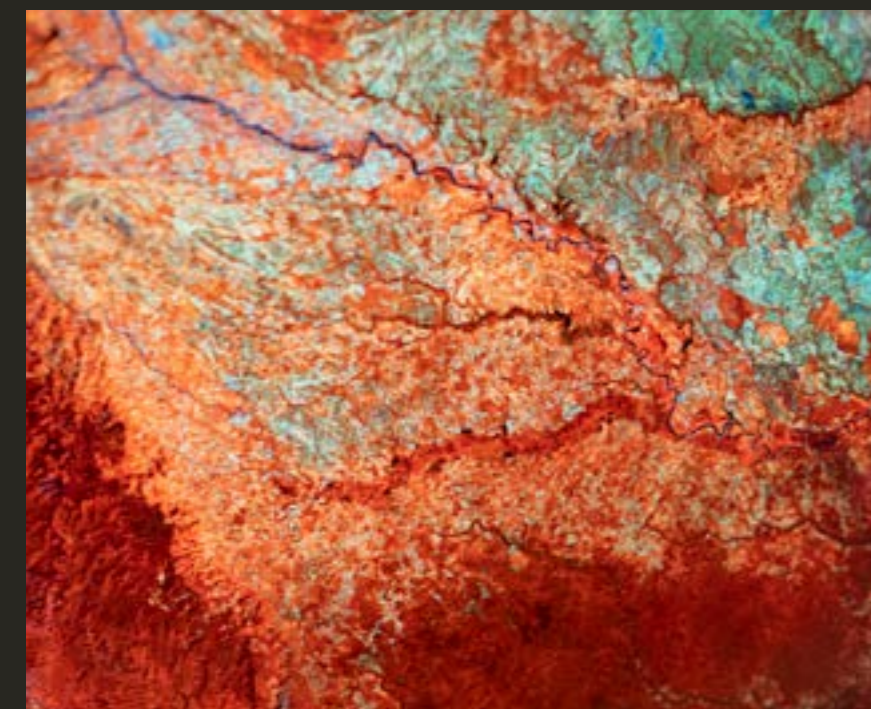
Photo: Wilmar Mogollón

Chapter

6

The science of
counting trees

VISIÓN AMAZONÍA
REM Program





IDEAM

Instituto de Hidrología
Meteorología y
Estudios Ambientales

Cll 25D N° 96B 70

Work team of the Forest and Carbon Monitoring System for Colombia of IDEAM, excellence in satellite monitoring and characterization of causes and agents of forest transformation in Colombia, 100% committed to its conservation and the wellbeing of its communities.

Photo: Wilmar Mogollón



"Colombians lack a better understanding of how the portrait, the image of their country has been changed", Colombian historian, Jorge Orlando Melo¹ wrote years ago in a special issue of Credencial magazine, presenting a curatorship collection of the most significant maps from the establishment of New Granada to the Colombia of the twentieth century. "For an unprepared reader, one of the most curious verifications is to see how the territory of what is now Colombia has expanded and narrowed", Melo continued in his reflection; "of course, this says something about the not very active policy of territorial occupation of the frontier areas prior to the boundary negotiations".

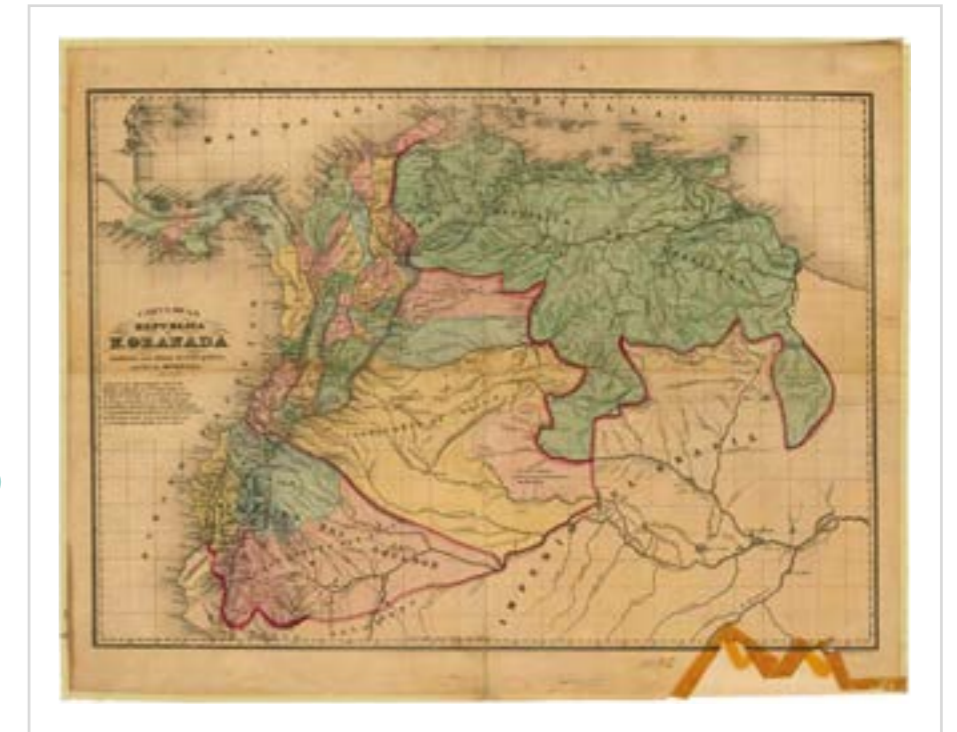
The radical transformations in these maps also demonstrated, according to Melo, that sometimes these negotiations were made carelessly and without firmness, reflecting "nationalistic illusions of cartographers and governments, which placed as belonging to the country, immense areas of virgin forests, barely inhabited by populations who were unaware of the very existence of our nation".

This lack of knowledge, this lack of interest in a large part of the territory, added to the technological limitations that led to this cartographic imprecision "of the virgin forests", would last well into the twentieth century and even at the beginning of the twenty-first century we still lack detailed maps of the forests. A lack of knowledge that can be blamed on government institutions, because the indigenous communities that have inhabited them for centuries, know how to recognize their own territories in detail.

Revisiting those maps can be a good starting point to understand the significant contrast between those old cartography techniques and the amazing possibilities that satellite and computer technology offers today to geographers, cartographers and in general, to any citizen. These tools constitute a fundamental piece in the fight against deforestation at the national level and, especially in the Amazon. They are making it possible to monitor the forest almost meter by meter.

"For an unprepared reader, one of the most curious verifications is to see how the territory of what is now Colombia has expanded and narrowed"

Jorge Orlando Melo



1852. Charter of the Republic of New Granada. By Tomás Cipriano de Mosquera, based on the first map prepared by Agustín Codazzi, with amendments. Lithograph by F. Matyer, New York, 1852. Mapoteca 6, 55, National Archives, Bogotá.



1772. Geographical Plan of the Viceroyalty of Santafe de Bogotá, New Kingdom of Granada. Mapped by Francisco Antonio Moreno y Escandón, drawn by José Aparicio Morata.



1890. Map of the Republic of Colombia, surveyed by Agustín Codazzi, drawn by Manuel María Paz and printed by Erhard Hermanos, Paris, 1890. Mapoteca 6, 25, National Archives, Bogotá.



¹ <https://www.geografaiinfinita.com/2017/04/la-historia-de-colombia-a-traves-de-los-mapas/>
² <https://www.banrepcultural.org/biblioteca-virtual/credencial-historia/numero-25/atlas-historico-de-colombia>



1910. Geographical Map of Colombia, according to the land use planning decreed by Rafael Reyes. Drawn by Francisco Javier Vergara y Velasco and engraved by Antonia María Madero for the "Atlas de geografía colombiana" (1910) (Colombian Geography Atlas). National Library, Bogotá.

First modern maps of forests

It was not until 1966 that the first cartographic representation of Colombia's forests was created, through the work developed by the Sub division of Agrology, a branch of Agustín Codazzi Geographic Institute [IGAC], called the General Map of Forests. Edersson Cabrera, one of the architects of the current Forest and Carbon Monitoring System of the Institute of Hydrology, Meteorology and Environmen-

tal Studies (IDEAM) and coordinator of the Enabling Conditions Pillar of Visión Amazonía, mentions that this map "was made with the technology available at the time: visual interpretation of aerial photographs and extensive field work by many forestry engineers, which resulted in a map at a scale of 1:1'000,000 that identified the general distribution of forests in Colombia"²



1939. Map of the Republic of Colombia. Office of Longitudes. Drawing by Dario Rozo. Printed by the Geographic Institute of Kummerly & Frey, Berne, 1939. Mapoteca 6, 214, National Archives, Bogotá.



² Interview Edersson Cabrera.

Nearly 12 years passed before the country undertook a new effort to update the Forest Map. Between 1976 and 1979, forest area updates were generated for the regions of the Amazon (Proradam-IGAC) and the Colombian Pacific (IGAC-Inderena), which finally allowed the publication in 1984 of the

new Forest Map for Colombia, at a scale of 1:500,000, a little more detailed than the previous one and with the innovation of including the visual interpretation of radar images (airborne), the first optical images from NASA's Landsat satellite program and small-scale aerial photographs.



Another 12 years would pass for a new update. In 1996, with the creation of the Institute of Hydrology, Meteorology and Environmental Studies (IDEAM), the Map of Land Cover, Use and Occupation of the National Territory was published, at a scale of 1:500,000, which included the visual interpretation of a larger set of optical images from NASA's

Landsat satellite program. Six years later, IGAC and Corpoica joined efforts and generated an adjusted version of the Land Cover and Use of Land Map (IGAC and Corpoica, 2002).

"The critical point of these studies is that they cannot be directly compared, nor can they



JOSÉ IBAÑEZ

Legal Representative of the Association of Agricultural Producers of Guaviare – Asoproagro.

Asoproagro is an organization that brings together 39 farmers in the municipality of El Retorno, Guaviare, who are dedicated to the cultivation of sacha inchi, in agroforestry models, with copoazú and timber, and are also committed to the conservation of 1089 hectares of natural forest under an agreement with Visión Amazonía REM program.

Sacha inchi is an Amazonian plant. Its fruits contain a nut from which oil rich in omegas 3, 6 and 9 is extracted, a very popular food product in the health food and bio cosmetics market.

Together with some producers, Asoproagro started producing sacha inchi in the form of roasted peanuts, coated with panela, sugar, cocoa, chili or salted, as a way to encourage cultivation. Now they are promoting the production, harvesting and transformation of sacha inchi into oil and flour as a sustainable productive alternative, so that the families have the necessary resources to live well and avoid destroying the forest on their farms.

Each member of the Association voluntarily signed a conservation agreement with Visión Amazonía REM program for the total of the hectares of forest they have on their farm. In exchange, through the association, each of the families received the necessary inputs to implement a sacha inchi plot, under a productive model that includes copoazú, plantain and timber-yielding.

Today, the processing plant to extract the oil is a reality. It is located in the village of Agua

Bonita in the municipality of San José del Guaviare. There, with good practices, the almonds are processed and the oil is extracted.

Sacha inchi, being of Amazonian origin, has a differential factor with that produced in other territories, which is why the qualities of the product are much better, because the concentration levels of omegas are higher than those cultivated in other thermal floors and other ecosystems above 500 meters above sea level. Another differentiating factor is crop management, good agricultural practices and the non-use of agrochemicals. Asoproagro guarantees clean production; fertilization and pesticides are produced on the farm with natural products.

Although sacha inchi is a new product on the market, farmers have high expectations, including the variety of by-products that can be handled. Asoproagro is targeting the commercialization of oil and flour (or cake), oriented to the food sector or for the bio-cosmetics industry. This diversity of possibilities motivates associates to cultivate, harvest and process sacha inchi as a great alternative to improve the living conditions of those who live in the Amazon while helping to stop deforestation.

An Asoproagro farm is an integrated farm, whose distribution is dominated by the forest, has an area under crops (banana, sacha inchi and copoazú) and some have minor species such as sheep. This Amazonian farm model promotes productive diversity in the middle of the forest.



ELIZABETH BARBUDO DOMÍNGUEZ

Executive Director of the Corporation for the Sustainable Development of the North and East Amazonian [Spanish acronym CDA].

"From our experience managing renewable natural resources in the departments of Guainía, Guaviare and Vaupés, Visión Amazonía has been an integral response to environmental problems with a focus on forest governance. Thanks to Visión Amazonía, the CDA has strengthened its operational capacity and has managed to develop, on the one hand, forest control and surveillance activities and, on the other hand, activities that contribute to sustainable development in its three environmental, social and economic aspects throughout the CDA's jurisdiction (Guainía, Guaviare and Vaupés).

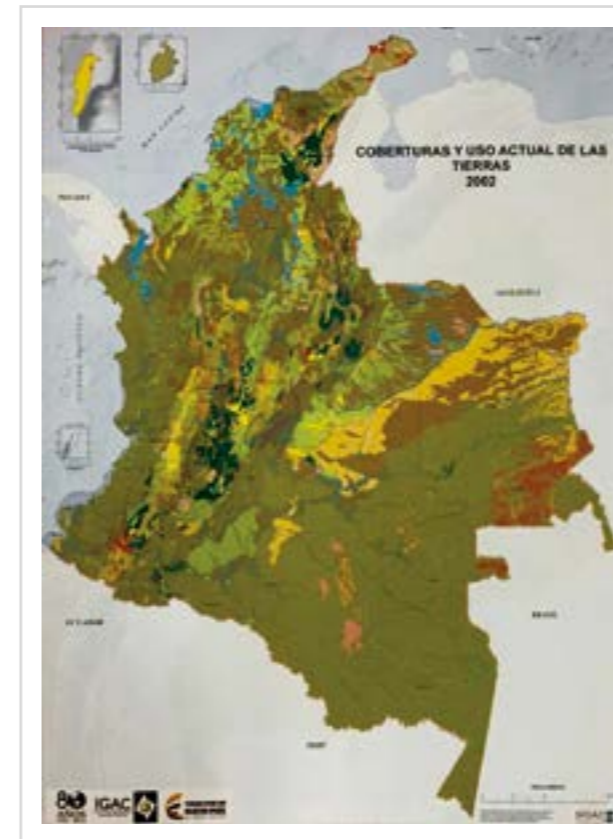
The implementation of the Amazon Forest Incentive [Spanish acronym IFA, the formulation of the Forest Management Plan in the department of Guaviare, the dialogue and direct intervention with families and in general with rural, indigenous and peasant communities, the strengthening of productive associations (of timber and non-timber goods), the control centres, monitoring visits to forestry industries and the elaboration of technical concepts for

better decision making are specific actions in areas affected by deforestation-related drivers whose impact is positive and allows for articulation with other entities and coordination of actions with the populations directly involved.

All of this is a significant contribution to guaranteeing the institutional presence of the CDA and the proper administration of renewable natural resources together with the populations.

Elizabeth Barbudo Domínguez is a professional in business administration from the National University of Colombia and a specialist in Social and Environmental Management. Since 2003 she has held positions in the public sector as a deputy for the department of Guainía for two consecutive terms, was Secretary of the Department for Indigenous Affairs and worked in different regional institutions.

be constituted as elements in an analysis over time," says Edersson Cabrera, "because they were carried out as isolated efforts, using different expert criteria, different inputs of aerial photographs, different types of satellite images, unequal cartographic scales, divergent methodologies and periods of analysis, and even using different definitions of forest"³. It was therefore necessary to standardize definitions, criteria and parameters so that data could be compared over time.



A new monitoring system is born

The birth of the current Forest and Carbon Monitoring System [SMBYC] of IDEAM for Colombia, allowed closing this old cartographic and representation debt of our forests. The international relevance that the protection of tropical forests acquired within the negotiations to address climate change was one of the key factors. Following the decision to create the REDD (Reducing Emissions from Deforestation and Forest Degradation) mechanism in 2007 within the framework of

the United Nations Convention on Climate Change, it became clear to the international community that better national forest monitoring systems were needed to quantify greenhouse gas emissions and removals, changes in forest area and carbon stocks forests. If the goal was to be the creation of a global mechanism for payment on results, for those who succeeded in reducing carbon emissions from deforestation, this would only be possible with a reliable, comparable and complete monitoring system.

Colombia was one of the countries that actively capitalized on this sudden international interest in tropical forests. In 2008, under the leadership of Ricardo Lozano, who later became Minister of Environment and Sustainable Development, IDEAM received financial support from the Gordon and Betty Moore Foundation (USD 2 million for five years), from the United States, and thanks to this, the project "Strengthening of technical and scientific capacities to implement mechanisms and projects to reduce emissions from deforestation and forest degradation (REDD) in Colombia" was established.

"The first thing we did was to standardize a methodology to implement the official definition of forest in Colombia," recalls Edersson, who, together with Gustavo Galindo and Diana Vargas, formed the initial working group in charge of this task. The main objective was to leave behind an analysis scheme based on "expert judgment" to generate statistically more robust, frequent and comparable information over time. This new methodology, based on national advances, such as the adaptation of the European methodology known as Corine Land Cover, which is based mainly on the visual interpretation of satellite images, made it possible to generate more frequent and more detailed information on forested areas.

The group took advantage of free data offered by NASA's Landsat program, which brings together a series of remotely sensed satellites that have acquired images almost continuously since 1972. The small equipment downloaded the complete catalogues

³ Document Monitoring of Forests and Deforestation in Colombia: History of institutional advances and committed professionals. Edersson Cabrera. Unpublished.

of images taken by the satellites between January 1 and December 31 of a calendar year (about 2,800 images per year), then combined them using statistical techniques and generated a single consolidated image for that year, which revolutionized the use of this type of imagery for environmental monitoring in the country.

It is not as easy a task as it sounds. First it was necessary to learn to use the "spectral mark" of Colombian forests to differentiate them from crops or other vegetation or land covers. When sunlight hits an object on the ground it reflects a portion of the light spectrum depending on the composition of that object. Determining more precisely which light frequencies are reflected by the different types of forest, allows to deduce during the processing of these satellite images, which

pixels correspond to forest and which to other types of cover. The types of forest cover in a country like Colombia are very diverse, given the conditions of topography, humidity and extension, covering from the high Andean scrubby forests in the upper part of the mountain ranges, to the dense high forests of the Amazon plain and the Pacific, including the flooded forests of large rivers and the relics of dry forests in various areas.

In those early years, SMBYC and IDEAM technicians worked with traditional desktop computers. "They were days of trial and error, because the algorithms we used or the computer programs were demanding in processing and, in general, they were always crashing or hanging," recalls Edersson.



Figure 3. Spectral signatures or responses for different elements of the earth's surface. Each element or land cover has a differential pattern according to the amount of energy it reflects in each wavelength or spectral band, information that is stored in satellite images. Forests present characteristic spectral responses that facilitate their identification (Taken from http://concurso.cnice.mec.es/cnice2006/material121/unidad1/firma_en.htm)

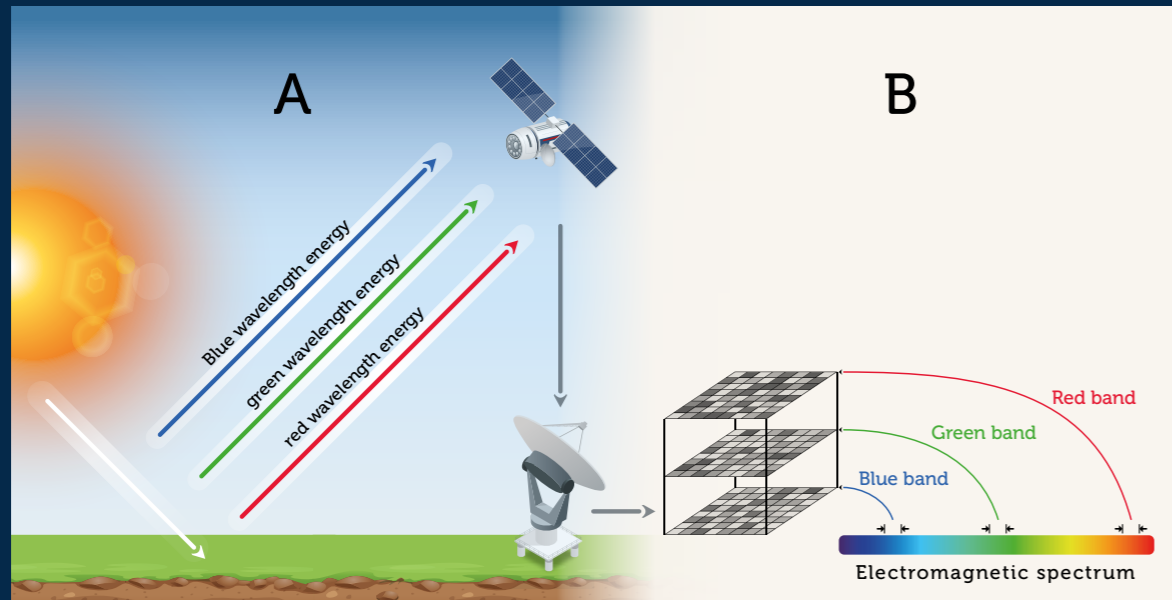


Figure 2. Capture of the information in the optical satellite images. A. The remote sensor (satellite) captures the energy reflected from the earth's surface at different wavelengths of the electromagnetic spectrum or spectral band. B. Once the data recorded by the satellite is received and processed, the information of each spectral band is stored separately in a raster format file in which the earth's surface is represented by a grid of cells or pixels with geographic coordinates; the set of these files makes up a satellite image. In the imagery, each pixel displays the value of the energy (reflectance) recorded on the corresponding part of the earth's surface (taken and adapted from ESRI and University of Toronto <http://grindgis.com/>).

In 2010, a national map was generated for the first time, corresponding to data for the years 2000 and 2007, at a geographic scale of 1:500,000. These images revealed that the greatest deforestation in Colombia was located in the Amazon, the Andean region and the southern and northern ends of the Pacific⁴. Was a great improvement over all previous maps. All the information generated could be stored on a conventional 8 Gigabyte USB.

With the learning acquired, a year later the SMBYC monitoring group generated the cartography, the figures of forest area and changes at the national level, in a more detailed geographical scale (1:100,000) for the years 1990, 2000, 2005 and 2010, updating the official figures, but also giving a consistent view to the past to understand the dynamics of the deforestation process in Colombia.

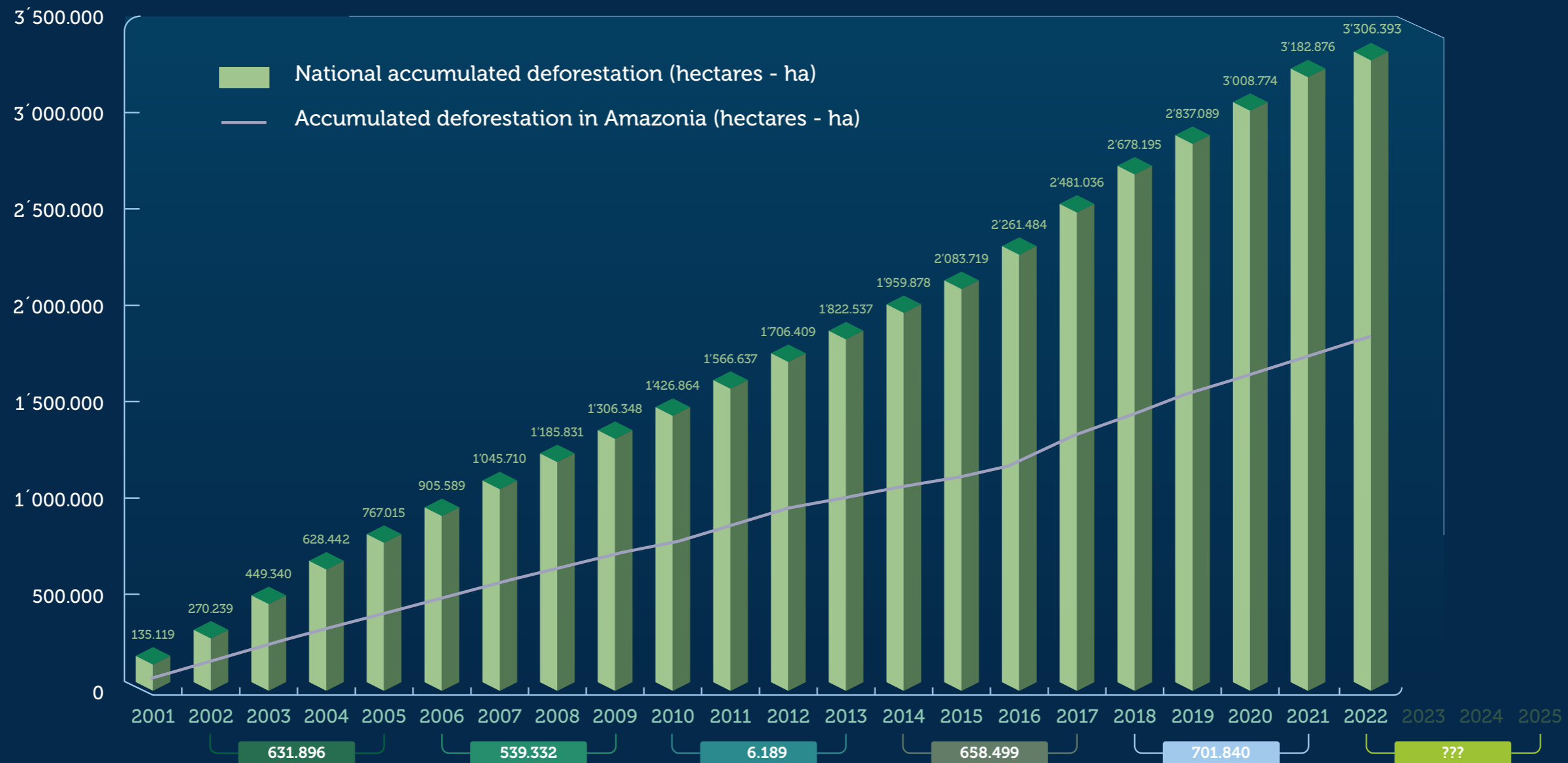
In 2012, to give continuity to this process, the Gordon and Betty Moore Foundation, Ecope-

rol S.A. and the GEF- "Heart of the Amazon" initiative, provided new funds to continue this effort. With the acquired experience, the group decided to adjust the protocol and adapt it so that the processing would automatically detect sites with changes in forest cover. Progress was evident: for the first time the country began to generate annual figures on forest areas and deforestation, while significantly reducing the presence of areas with cloud cover and consolidating an official and continuous data set for monitoring forest area in Colombia. The first annual monitoring figure corresponded to 2013 and revealed that 116,128 hectares of forest were lost in Colombia, mainly in the Amazon (58%) and in the Andes (21%), being the lowest forest loss recorded in Colombia up to that time. The most updated data indicate that for the last 21 years in Colombia 3'182,876 hectares of forest have been lost due to deforestation, of which 1'858,285 hectares occurred in the Colombian Amazon Biome (58%).



⁴ http://www.IDEAM.gov.co/documents/11769/72065174/Doc_metodol%C3%B3gico_SMBYC_Consolidado_v12_26062019.pdf/1c576c67-d00c-4e2c-b3b1-5a260305f3d0

Cumulative deforestation in Colombia. Period 2001-2022



However, to better understand the evolution of the phenomenon, the consolidation of older historical data remains a challenge; the catalogues would allow partial reconstruction of information from the mid-1980s to the end of the twentieth century, requiring additional investment.

Cabrera, Galindo, Vargas and the rest of the group were proud. At that point they had succeeded in developing seven proprietary al-

gorithms for pre-processing (error correction) and digital processing (information extraction) of satellite images, which constitute the "brain" of the system. One algorithm allows them to automatically connect to NASA servers to download images from Colombia. Another algorithm assembles the complete image catalogues (time series) generating a single image for each monitoring year. A third algorithm performs all radiometric, atmospheric and geometric corrections. Ano-

ther one is in charge of generating the identification of spectral signatures to automatically differentiate changes in forest areas. And a last algorithm allows to refine the identification process and give more certainty to the monitoring data.

These algorithms configure the "processing chain" of the SMByC, positioning it as the official tool, approved as the official statistician of DANE, to inform the country how

much forest there is, how much forest was lost due to deforestation, where these areas are concentrated, and to identify the main causes and agents of deforestation. Annually, the SMByC updates the official monitoring figures of forest area and deforestation, identifies its behaviour and trends; every three months it issues a bulletin of early detections of deforestation, which identifies the critical sites of forest loss in Colombia, and as an input to the action of the environmental authorities,

the SMByC generates weekly reports of Early Deforestation Alerts AT-D. With the continued financial support of the REM - Visión Amazónica Program, the SMByC has published eight official monitoring figures of forest area and deforestation in Colombia (2013, 2014, 2016, 2017, 2018, 2019, 2020 and 2021), 32 semi-annual/quarterly bulletins of Early Deforestation Alerts (from 2015 until the third quarter of 2022) and 200 weekly Early Deforestation Alert Reports (from January 2019, until November 2022). Finally, applying this processing chain, the SMByC performs monthly monitoring based on the digital processing of satellite images on the areas of 2,571 beneficiaries of the Amazon Forest Incentive, reports that are aggregated quarterly to ensure the payment of the incentive, if the non-deforestation established in the forest conservation agreement is met.

Thus, the SMByC is not only generating annual data, but also early warnings of deforestation. They no longer use only medium-quality satellite images, but even high-resolution ones. The old desktop computers are history. Everything is done through high performance workstations that have a very good storage, processing and display capacity to be able to see the resolution of the images very well. The system has its own data centre.

If the 2010 forest map could fit on a 6.5 Gb USB memory stick, the information associated with one of today's maps occupies approximately 4.3 terabytes of data. In addition to the high-resolution images that explain this growing demand for computing capacity, the group is using images from four satellites: two Landsat from the National Aeronautics and Space Administration (NASA) and two Sentinel from the European Space Agency (ESA). "Today we are using practically all the pixels available in the images to be completely sure that what we identify as forest is because it is forest," say Edersson and Gustavo. Each satellite image weighs approximately 300 Mb, but when corrections are made and all the processing is done, each image weighs approximately 1.3 Gigabytes. "The algorithms are not perfect, the algorithms do not have eyes, they do not know what is and

what is not forest. There is still a gap to overcome. This is why automatic algorithms cannot yet generate official information," explains Edersson.

In an effort to globalize forest monitoring, the University of Maryland established the Global Land Analysis and Discovery [GLAD] research group. Its main objective is to investigate and deepen the development of methods and the determination of causes and impacts of global land cover change. This team, in collaboration with the World Resources Institute, generates global data on forest extent and change as part of the Global Forest Watch initiative. Part of the methods proposed by the University of Maryland have been taken as a basis for establishing the guidelines and protocols for monitoring forest area and deforestation of IDEAM's SMByC.

“The algorithms are not perfect, the algorithms do not have eyes, they do not know what is and what is not forest. There is still a gap to overcome. This is why automatic algorithms cannot yet generate official information”

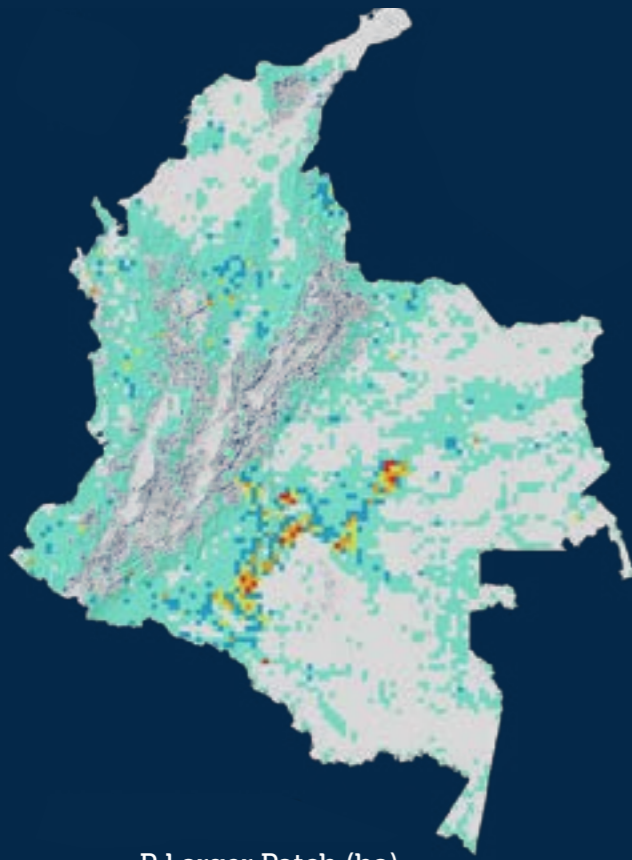
Edersson Cabrera

All this effort has made it possible to consolidate a historical database that shows the dynamics of forest area and deforestation in Colombia for the last twenty-one years (2000-2022). If deforestation is to be combated, data is the key to guide efforts and Colombia is one of the few countries in the world that has a proven and effective system for this purpose.

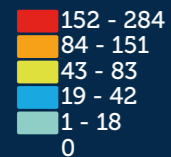
The Forest and Carbon Monitoring System provides the country with an alert like this every three months:



Analysis of Size / Number of Deforested Patches

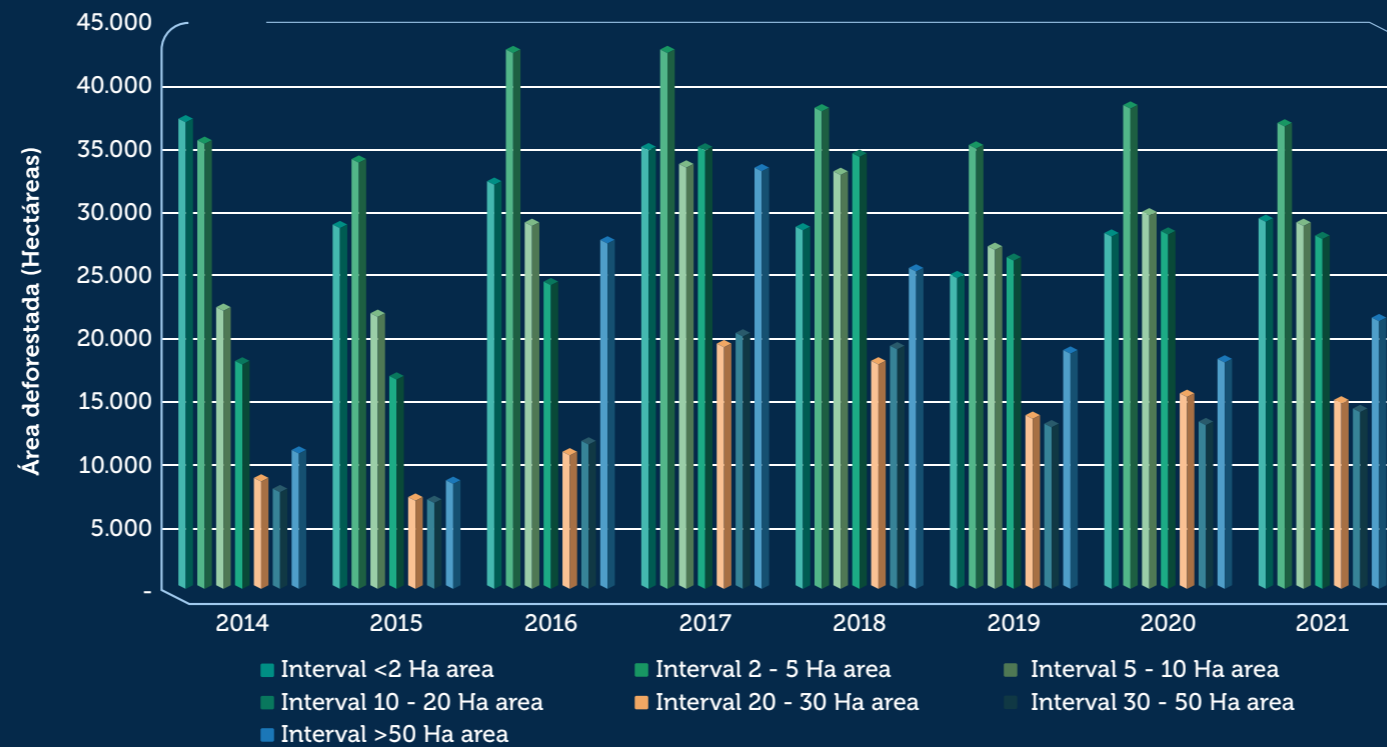


P Larger Patch (ha)

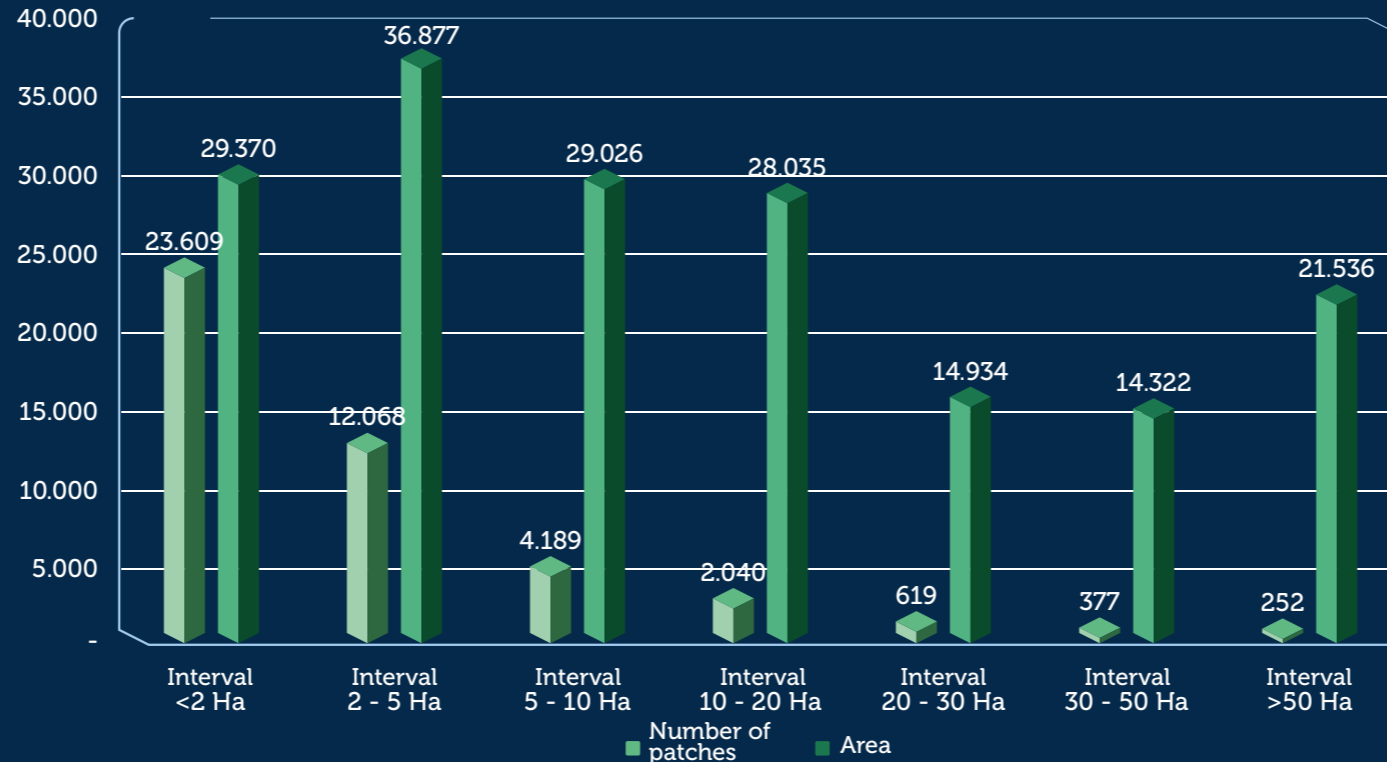


The largest patches are concentrated in Mapiripán, PNN Tinigua, El Camuyá and Yarí Sur.

Historical deforestation patch behaviour



Patch analysis



Source: Own elaboration

The Visión Amazonía program, key to the System's continuity

Visión Amazonía contemplated from the beginning to support and financially strengthen this system to generate not only the information for the program, but also to maintain the generation of information for the whole country. The official annual reports of Greenhouse gases emission reductions in the Colombian Amazonia are the basis of the payment on results agreement.

To achieve the goals proposed in this regard, Pillar 5 of Enabling Conditions was structured with IDEAM as a partner entity of Visión Amazonía. In addition to continuing with the operation of the monitoring system, the pillar has been assigned the task of implementing the National Forest Inventory in the Colombian Amazon, but also to accompany the tasks of the other pillars. For example, Pillar 1 of Governing in the Forest supports it by strengthening the capacities of the regional environmental authorities for the control and surveillance of forest areas and monitoring the effectiveness of the actions.

Twenty-one years of deforestation data are also an input for the development of incentive strategies at the property, rural settlement and municipal levels (Pillars 1 and 3); the generation of a new Land Use Planning for the Colombian Amazon (Pillar 2); the updating of Land Use Planning of the municipalities with the highest levels of historical deforestation (Pillar 2); prioritization of municipalities/rural settlements for the implementation of agro-environmental projects with conservation agreements (Pillar 3) and monitoring of deforestation behaviour in areas of indigenous peoples that have benefited from the program's calls for proposals (Pillar 4). Monitoring is also being used to evaluate the effectiveness of interventions, such as the payment for environmental services known as the Amazon Forest Incentive.

Historical spatial behavior of deforestation in Colombia.



GUSTAVO GALINDO GARCÍA

Leader of Digital Image Processing of the Forest and Carbon Monitoring System - IDEAM

The Visión Amazonía REM Program has stood out for applying the “Stock-flow” approach, allowing the creation of favourable conditions to reduce deforestation and favour conservation, including the strengthening of national and territorial entities to improve forest management and governance.

For 10 years, Gustavo Galindo has been leading the technical group of the Forest and Carbon Monitoring System -SMBYC- of the Institute of Hydrology, Meteorology and Environmental Studies - IDEAM, responsible for the digital processing of satellite images for the publication of official figures on forest monitoring and deforestation in the country, which has allowed to have the ray photograph of the forests for the last 22 years.

In this sense, Visión Amazonía has been for the Colombian Forest and Carbon Monitoring System team a very good opportunity to strengthen IDEAM’s capacities for the generation of official forest and deforestation monitoring figures, but also to generate information at regional level and even for properties benefited by forest conservation incentives, using science information derived from remote sensors for forest monitoring and the effectiveness of public policy actions.

This work has allowed IDEAM to structure and form one of the best digital processing teams in the country, being the SMBYC a reference for other international monitoring systems, building algorithms, tools and processing chains, which even allow monitoring zero deforestation agreements, generating early warnings of deforestation and data at the farm level.

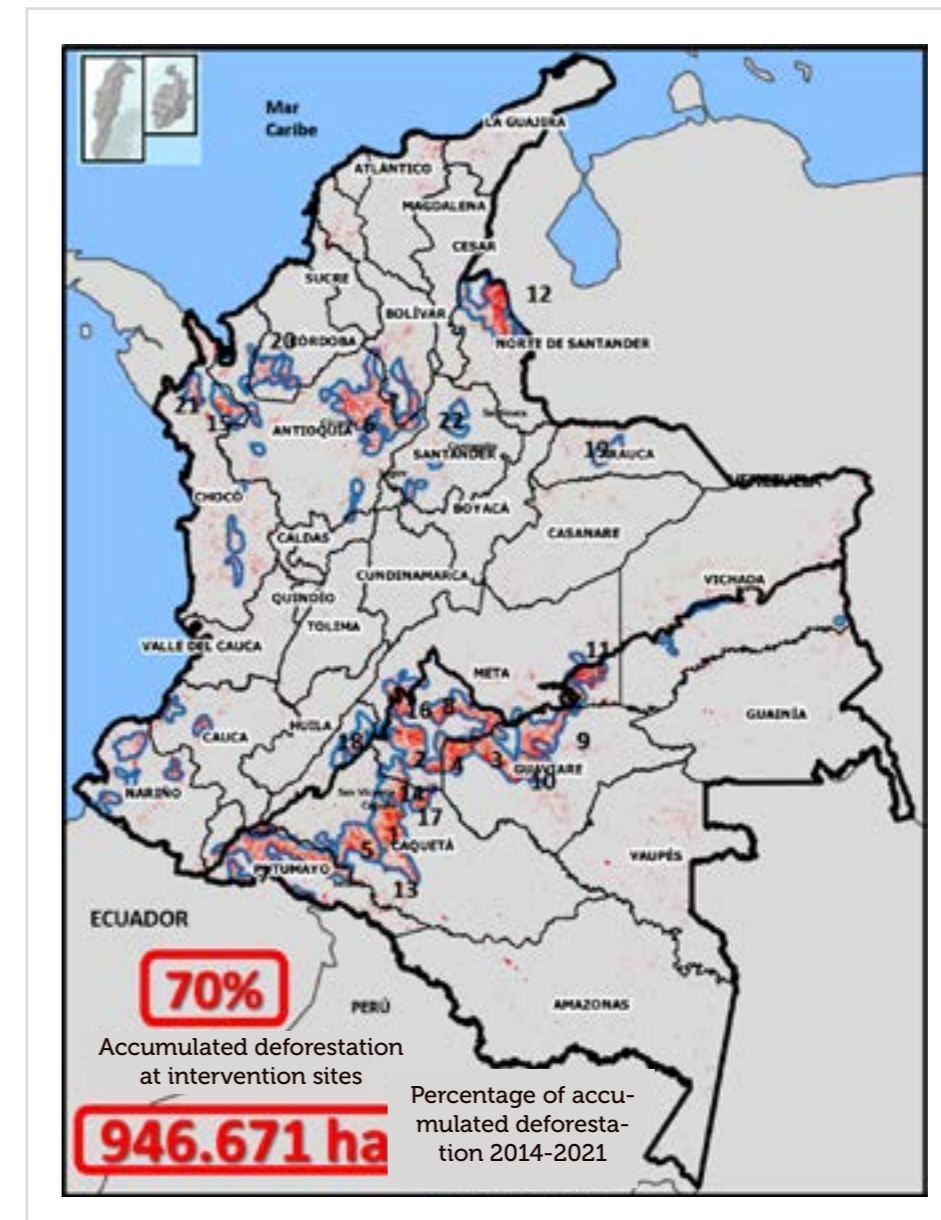
The SMBYC team knows and recognizes that there are still many challenges to generate more and better information for the country and that is why they manage national and international resources to strengthen themselves more and more technically and technologically.

Gustavo Galindo has been in love with forests all his life, “since I can remember my hobbies, my trips and my sacred memories have been connected to them, that is why I studied biology at Los Andes University and did my postgraduate studies in spatial analysis of environmental issues and data derived from satellite images” and he emphasizes that when describing him, mention that he is “Sandra’s husband and Joaquín’s father”. His colleagues describe him as an excellent teammate, intelligent and with a very good sense of humour.

Clarifying the vision about the deforestation

The data produced by the Monitoring System is making it possible to correct the historical myopia about forests, in order to advance in the control of deforestation. Currently this historical monitoring information shows that deforestation has been concentrated in 44 Active Deforestation Nuclei (ADN) with 946,671 hectares deforested (representing

70% nationally between 2014-2021), to understand the problem at a more granular level to make decisions. “This type of analysis complemented with some additional ones, such as the one contracted with the firm Nest in 2020, is like using a magnifying glass to take a closer look at the problem in each municipality”, says José Yunis”.



Active Deforestation Nuclei in Colombia. Analysis 2014-2021



FERNEY GUTIÉRREZ CARDOZO

GIS Specialist assigned to CDA Corporation [Corporation for the Sustainable Development of the Northern and Eastern Amazon] Guaviare section



EDWIN PAQUI BARBOSA

Indigenous member of the team of researchers of the National Forest Inventory

B By the end of 2016, environmental engineer Ferney Gutiérrez began working with the Forest and Carbon Monitoring System [SMBByC] of IDEAM [Institute of Hydrology, Meteorology and Environmental Studies] and in 2018 he joined the team of monitoring professionals of the REM - Visión Amazonía program. His main function has been to support the generation and evaluation of early warnings of deforestation and/or fires through the digital processing of remote sensing images in the Department of Guaviare. This work is carried out with the implementation of IDEAM's SMBByC methodology for digital image processing and deforestation detection, essentially using Landsat satellite images and complemented with Sentinel II and Planet images.

Its activities include generating reports on the storage, processing, and analysis of spatial databases related to natural resource management, in support of the Guaviare Sectional CDA Corporation. Deforestation reports are presented on a quarterly, monthly and weekly basis based on IDEAM's weekly national reports.

These reports are presented within the framework of the Regional Coordination for the Control of Deforestation [CRCD] of Guaviare, which includes all the entities that in one way

or another have environmental jurisdiction. These entities include the CDA, National Parks, the Sinchi Institute, the Attorney General's Office, the Fire Department, the Guaviare Governor's Office, municipal mayors' offices, military and police forces, among others.

The work of engineer Gutiérrez has allowed more than 150 sanctioning files to be opened since 2017 for deforestation by the CDA Corporation and its legal team, of which some have already been finalized, achieving exemplary sanctions.

Within its work, it is noteworthy that in February 2018 a public calamity was declared in Guaviare due to forest fires, which especially threatened the Cerro Azul cave paintings, a jewel of incalculable archaeological value.

The participation of professionals in geospatial information systems is essential for the development of control and surveillance activities of environmental authorities as in the case of the Guaviare CDA, strengthened with the support of Visión Amazonía REM program.

The Amazon region has two additional specialists in the jurisdictions of Corpoamazonia and Cormacarena who are in charge of this same work.

A Almost losing one of his feet Edwin Paqui Barbosa, agro-ecological engineer, indigenous member of the team of researchers who participated in the National Forest Inventory in the department of Vaupés remembers as if it were today that morning of October 6, 2018, when he was bitten by a snake in the middle of the jungle.

"To get to the place where we would build up the conglomerate, it took us five days, two by boat and three walking. That day we started to walk from the camp very early, our team had already taken measurements of the northern part of the plot. It was about 10:45 in the morning when we started the west part. I had put my backpack on a stick and had passed by it several times, but I didn't see the snake; the third time I passed, I took a step and then I felt the bite that went through the boot of my left foot, the snake ran and suddenly stopped and looked at me, that image will never be erased", this is how Edwin remembers the event.

He also remembers his 14 companions, desperate, making an improvised stretcher and a tourniquet on his leg, giving him remedies prepared with medicinal plants such as rubiaceous, while the satellite phone that was in the camp arrived to ask for help from different

entities. They were five hours away from the camp, and five days from Mitú. Twenty-five hours later an army helicopter arrived, but despite the clearing in the river where the trees were small and thin, it could not land. One of its crew members, a trained military man, intrepidly descended a rope with a kind of heavy anchor on the end, unloaded some food and together they tied Edwin to the military man's body to take him to the aircraft and transfer him to the nearest hospital in Mitú, the nearest medical centre.

He was transferred to Bogotá where he underwent surgeries and slowly began to recover. He was hospitalized for two months, combining western and traditional medicine, amidst therapies that included bicycle exercises and the prayers of his father, a traditional muinane medical doctor. He slowly walked again. Once he was discharged, he returned to his territory to finish his treatment based on herbs and medicinal plants, with prayers and ancestral care as they do in the community of Villa Azul.

Edwin Paqui Barbosa was one of the indigenous people who went into the jungle to rescue the 4 children who survived the plane crash on May 1, 2023, overcoming fears and worries and feeling proud of the Amazon jungle.



With regard to the sustainable use of non-timber forest products, in San José del Guaviare we supported the ASOPROCEGUA Association. They now have a processing plant for açaí, which has generated employment opportunities and helped fulfil conservation agreements.

Photo: Héctor Suricata

Chapter

7

An attempt to design
the future

VISIÓN AMAZONÍA
REM Program





In this photograph from left to right: Andrea Corzo, DAASU Director; Ricardo Lara Melo, Sustainable Sector Development Pillar Leader; Adriana Díaz, DGOAT; Mario Orlando López, DAASU Advisor

Photo: Héctor Suricata



Deforestation in the Colombian Amazonia is the consequence of an enclave economy, of a historical extraction of natural resources and of an internal colonization model, sometimes induced by State policies; it is also the manifestation of a culture, and the inevitable result of the history of settlement in this region. In October 1985, sociologist and journalist Alfredo Molano explored and walked part of the immense Amazonian territory to understand its tragic destiny. He embarked on the Guayabero and Ariari rivers, the two main arteries that feed the Guaviare River, and travelled the trails connecting San José del Guaviare with Calamar. Guaviare is today one of the departments most threatened by deforestation. During 2020, 67% of deforestation was concentrated in 12 core areas, the two main ones being in Guaviare¹.


With tape recorder and notebook in hand, Molano recorded vivid fragments of the memory of the settlers who played a leading role in what he called “the rapacious colonization”, a first phase of settlement that span-

ned the times of rubber tapping, oncilla hunting (“tigrilleo”), fishing and the extermination of indigenous peoples, and that lasted from 1920 to the middle of the century. Molano connected the memories of those old settlers who arrived from Boyacá, Meta and Tolima, with acute observations and testimonies about the dynamics that followed that colonization and shaped the region in the second half of the 20th century: A farmer settlement that went hand in hand with an armed settlement and the explosive coca economy that transformed everyone’s destiny.

In this book, entitled *Selva Adentro*, Molano reminds us that the planning logic in the region has been the creative improvisation of settlers to survive, and an economy that has oscillated between booms and bankruptcies, in which the “debt system” governs commercial transactions, and in which war is paid for with land. The deforestation phenomenon, about which dozens of documents are now being written, finds a simple and concrete explanation in these pages:

“The system of this vast area is identical to that which prevails in all agricultural settlements: clearing, burning and harvesting. The cycle repeats and expands on very simple foundations: Absence of monetary resources, elementary tools, primitive techniques, and lack of communication channels. As a result, the economy tends towards self-consumption, and is complemented by marginal activities such as hunting, fishing, and gathering. Marketable surpluses are limited, and profits are occasional. Rudimentary production techniques tend to deplete the land, and yield is usually negative after five to seven years. The secret of the persistence of this system lies in the use of family labour, self-consumption and various forms of collective association among neighbours. Naturally, it is only at the cost of great privations and sacrifices that the settler can survive and reproduce his/her cycle. However, all things considered, what the settler reproduces is a state of anxiety and instability... However, the land remains open to him/her. It is the only means of savings and accumulation possible under such adverse conditions. The improvements are the testimony and, at the same time, the only stable product of labour and, as such, the object of the most unscrupulous desires of land merchants, who are usually the same ones who trade with other products of settlement. ... Once the improvements have been sold and debts paid, the settler looks for a new place to settle to restart the cycle”.

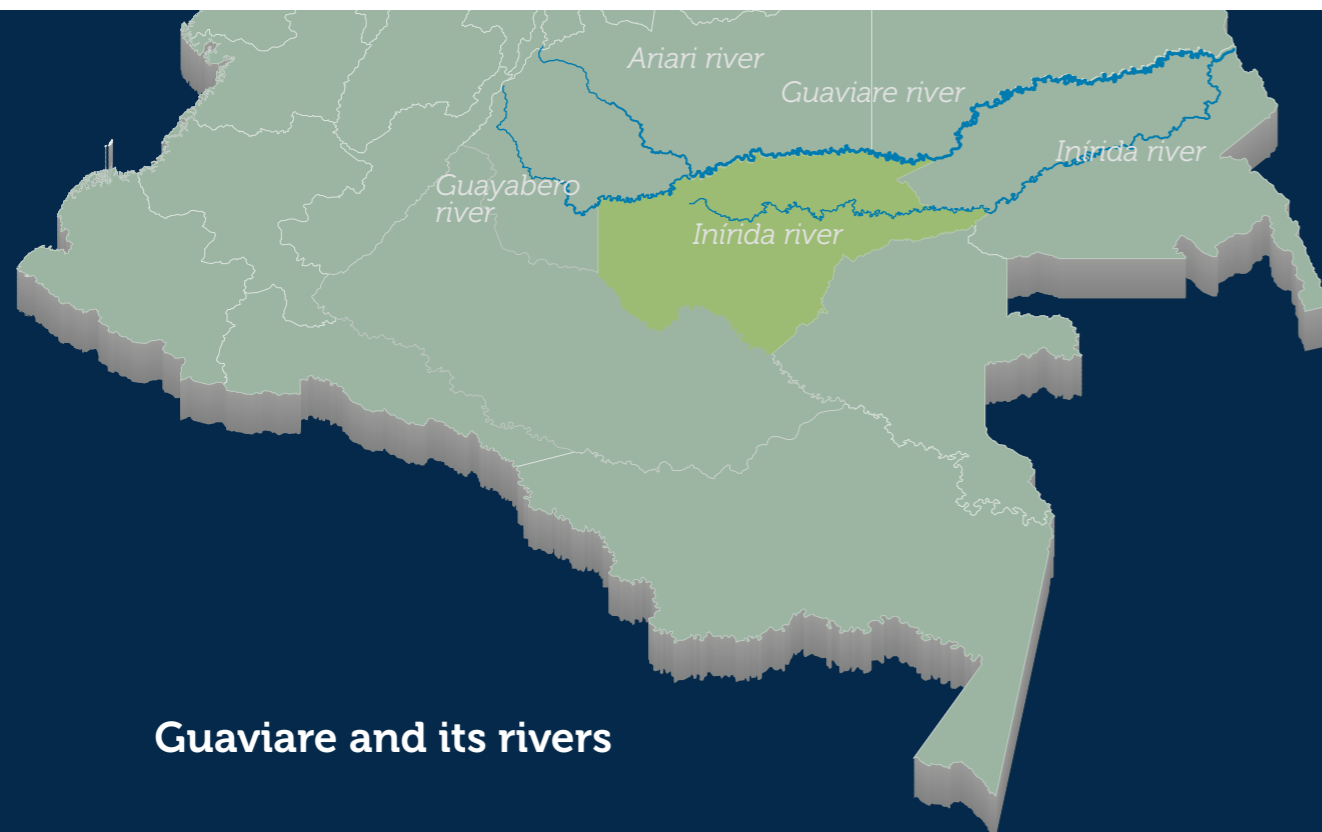
The life stories collected by Molano can still be heard today along the trails and in the villages of Guaviare, Caquetá, and Meta, which received those settlement impulses. Molano left a warning for future generations interested in this territory: “Any attempt to modify a reality that is not inspired by the course that determines it, necessarily leads to failure”.

Nearly 35 years after Molano’s trip, on April 2020  , while we were all experiencing the rigors of the first national quarantine decreed to try to contain the advance of the new SARS-CoV-2 coronavirus, which in the following months would claim the lives of almost 140,000 Colombians, a document

was published that seeks to do just that: To establish guidelines to modify the reality of the Colombian Amazonia. Although more than a look at the past, it is a review of the present and a bet for a better future. The document describes the first land use planning model conceived for a single region: the Regional Land Use Planning Model for the Colombian Amazonia or “MOTRA”².

The economic and social dynamics that have been present in the Amazonia since the end of the twentieth century and that affect land use and occupation, are not in keeping with the natural environment, and threaten the sustainability of the territory. Socio-environmental conflicts related to mining and hydrocarbon exploitation, timber exploitation based on indebtedness, coca cultivation and those related to the structure of land tenure, have given rise to various public policy strategies in the territory, almost always disjointed from one another. In the case of illicit crops, interventions have ranged from fumigation to manual eradication. As for land tenure, where illegal groups, large landowners, farmers, and settlers have participated, one of the aspirations of the latter is to obtain a property title to legalize their settlement. This is one of the purposes of the first point of the Havana Agreement: The agrarian issue. This document proposes the need for a comprehensive agrarian reform that will bring about a transformation in the countryside and bring welfare to the rural population. This is aimed at a better distribution of land ownership, greater efficiency in land use patterns, and a change in the distribution structure of land with potential for agricultural use.

Today we know that part of the answer to this extractivist model, lies in the development of a sustainable forestry economic model that rewards and protects the standing forest, where the economy revolves around its management and protection; if we want to stop extensive cattle ranching, the illicit crop economy and land grabbing, then it is necessary to design and implement a long-term model with the articulated intervention of different policies from various sectors. Reward everything that maintains the forest, discou-



Guaviare and its rivers

¹ Deforestation monitoring results. Year 2020. http://www.IDEAM.gov.co/documents/10182/113437783/Presentacion_Deforestacion2020_SMBYc-IDEAM.pdf/8ea7473e-3393-4942-8b75-88967ac12a19

² Regional land use planning models are derived from the Organic Law on Land Use Planning (Law 1454 of 2011) and are found in the State strategic planning of Regional Development Visions. Due to its priority status, the MOTRA was adopted on the basis of the Amazonía Viva Regional Pact of the organic law of the National Development Plan (Law 1955/2019). As a consequence, the indications pointed out in the National Development Plan, being of higher hierarchy and of mandatory compliance and harmonization both for regional, departmental, and municipal development planning, oblige the concurrence of State entities at the regional and departmental level.

rage everything that threatens it. But how to achieve it? José Yunis finds part of the answer in the adjustment of sectoral policies. “Colombia has traditionally planned under sectoral logic, but these sectoral policies land in the same territory. There is not a territory for each sector. Harmonizing these different policies is therefore a sine qua non for containing deforestation.”

MOTRA was conceived for this purpose, considering that the Amazonia region is characterized by the fragility of its ecosystems and social structures, and is in permanent tension between conservation and extraction, since the historical expectation of the existence of natural resources is combined with the need to conserve a vast natural and cultural heritage. MOTRA is the road map on which the country decided on the use and occupation of the territory, based on environmental conditions and social expectations, which has been built with the interests and social expressions in the territory through a dialogue that resists change, but recognizes the need to make changes and modifications in the State’s policy on deforestation and forest conservation.

MOTRA “is basically the roadmap to the year 2030, with the transformations required by the Colombian Amazonia to enhance its development, connect its territories, and guarantee the transition from an extractivist development model to a sustainable development model, which protects and takes advantage of the region’s natural wealth and reduces deforestation”, according to Ricardo Lara Melo, leader of the Planning and Sustainable Sector Development Pillar of Visión Amazonía. Lara, who began his career as a geographic engineer working in the hydrocarbon industry, but later took an academic and professional turn to focus on environmental management and sustainable development, knows very well that these transformations imply a titanic task.

The Amazonia in 2030

María Cristina Martínez, advisor to the Sub-directorate of Land Use Planning of the National Planning Department, believes that one of the great challenges facing the country in the 21st century is to “much better consolidate the planning cascade from the national to the local level”. A first step in this direction was taken in 2004, when the General Land Use Planning Policy was formulated with the aim of providing solutions to harmonize these sectoral policies of the national government with Land Use Planning instruments. With MOTRA he feels that “... we are in a process of transition towards these new ways of planning our territory and building long-term visions”, says Martínez.

MOTRA oversaw the National Planning Department. Part of the Brazilian government’s decade-long success in the fight against deforestation, lies in the fact that it involved the most important heads of State. In Colombia, this objective has been more elusive, but the participation of an entity such as the National Planning Department is a positive sign. Over the course of several months, officers in charge gathered information and established dialogues with other State entities, representatives of indigenous communities, economic associations, governors and mayors.

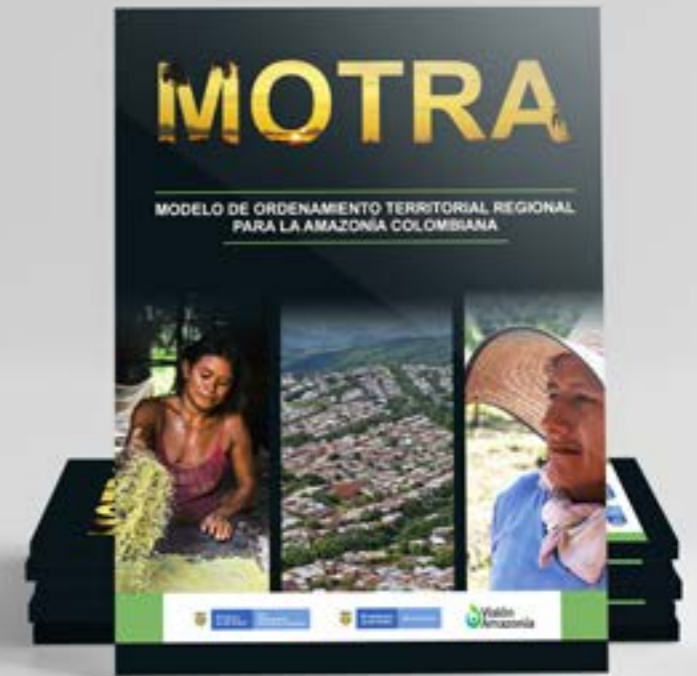


“...we are in a process of transition towards these new ways of planning our territory and building long-term visions”




María Cristina Martínez

MOTRA combines biophysical information on the Amazonia with population dynamics, infrastructure, and regulatory and institutional data. From there, authors generated a model in which they proposed a zoning of the region to serve as a guide for the future.



MOTRA authors warn that, if Colombians do nothing to change the historical trajectory of the Amazonia, the most likely trend scenario is the loss of about 1.4 million hectares of forest by 2030, mainly in the departments of Caquetá, Guaviare and Putumayo. There could also be an increase in pressures on the National System of Protected Areas, an impact on the water supply and an increase in temperature, the indigenous population would be affected, and urbanization of the main human settlements would expand, especially in Florencia, the capital of the department of Caquetá Caquetá.

In fact, one of the obstacles pointed out by MOTRA to achieve better regional planning, is the fragmentation of sectoral poli-

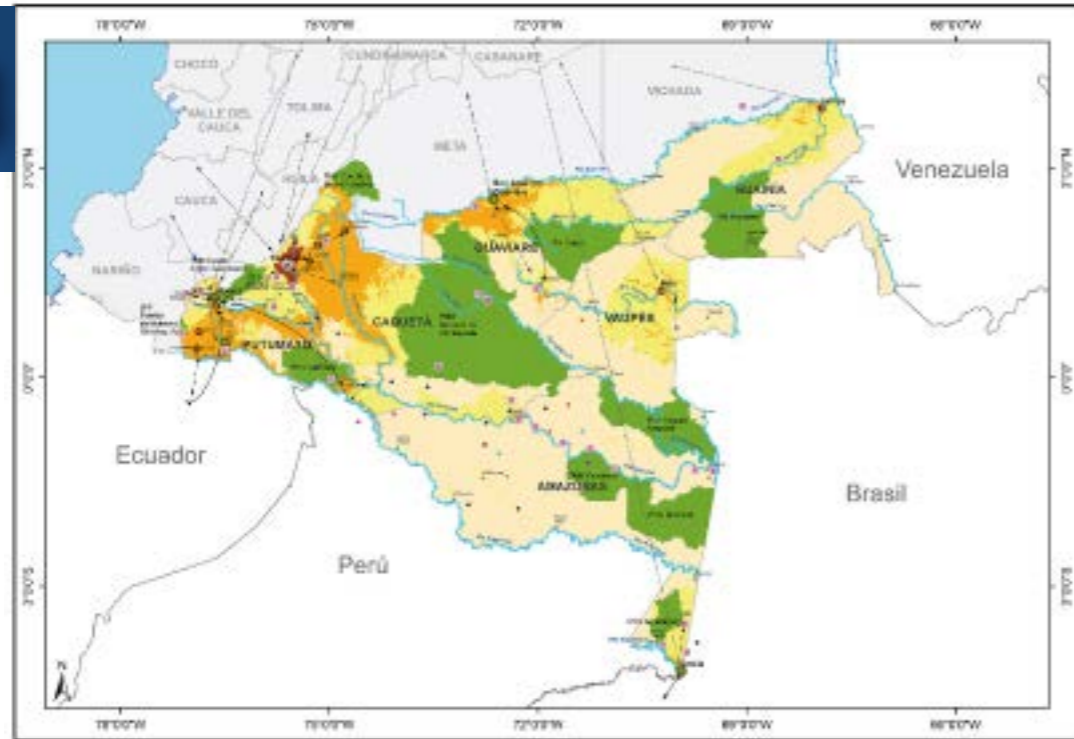
cies. To this end, the authors identified 41 sectoral commitments related to the Amazonia. How to achieve real planning in the face of so much fragmentation? To the jigsaw puzzle of laws, decrees, Conpes documents, plans, policies, and strategies, we must add court rulings, among them, Ruling 4360 of 2018  in which the Court declared the Colombian Amazonia to be a subject of rights.

From planning to action

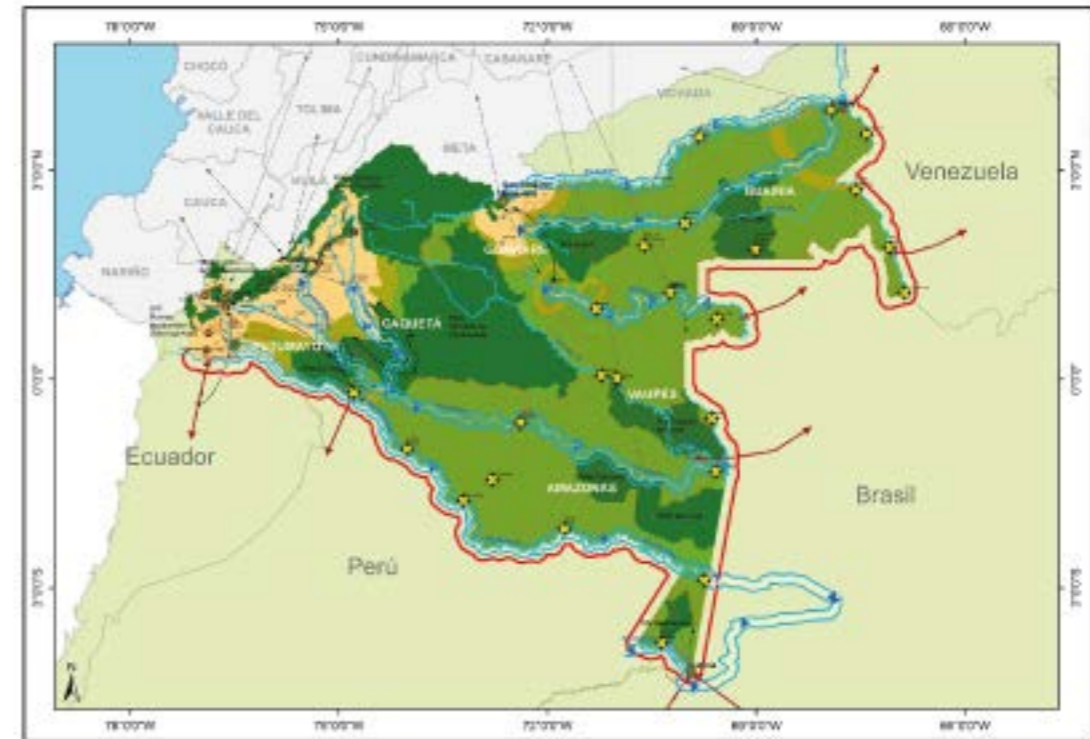
MOTRA summarizes the six lines of work on which regional planning should concentrate. Actions of Visión Amazonía pillars are aimed at all or some of these guidelines.



2018



2030



- 75% of the environmental base conserved, 63% of the region's indigenous reservations.
- Predominantly indigenous population and subsistence economy.
- Predominantly by river, precarious infrastructure.
- Expansion of the frontier and increased pressure on EEP (Main ecological Structure) due to the extractivist model.
- Economic enclaves (mining - coca). Population enclaves, indigenous settlements.
- Florencia, Mocoa and San José del Guaviare have a higher functional hierarchy, population concentration and institutional capacity.
- Foot of the Mountain Zone with High Susceptibility to Natural Hazards.

Lineamientos Estratégicos

- 1 Planning system for the Colombian Amazon
- 2 Zero deforestation, conservation, preservation, and restoration for intergenerational equity.
- 3 Sustainability of cultural heritage
- 4 Conversion of the extractivist model and sustainable production.
- 5 Intermodal transportation infrastructure and supply of equipment with a differential approach.
- 6 Territorial governance.

- Natural capital as a basis for land-use planning.
- Control of deforestation.
- Consolidation of the frontier with an agro-environmental approach.
- Sustainable productive practices and promotion of the bio economy.
- Provision of services in rural and indigenous settlements.
- Preservation of cultural diversity.
- Infrastructure for intermodal transportation.
- Contribution to the National GDP.



EOTs

Ruling STC 4360 of 2018 ordered all municipalities in the Colombian Amazonia to update and implement an action plan to reduce deforestation to zero in their Land Use Planning instruments, which will encompass measurable preventive, mandatory, corrective and pedagogical strategies, aimed at climate change adaptation to be applied specifically in the municipalities of San Vicente del Caguán, Cartagena del Chairá, San José del Guaviare, Calamar, La Macarena, Puerto Leguizamó, Solano, Uribe, El Retorno, Puerto Guzmán, Puerto Rico (Caquetá), Miraflores, Florencia and Vistahermosa.

Based on the above, the Ministry of Environment and Sustainable Development, with the support of the GEF Heart of the Amazon program, worked on the formulation of guidelines for regional autonomous corporations to update their environmental determinants related to the reduction to zero deforestation and adaptation to climate change to be included in the update of their Land Use Planning Instruments. In this exercise, the criteria and guidelines derived from MOTRA were widely used, with the purpose of unifying the actions requested by the Ruling, with a view to 2030, as proposed by the model in the six guidelines mentioned above. In this way, governance was strengthened, as mentioned by María Cristina Martínez, by “much better consolidating the planning cascade from the national to the local level”.

Amazonia RAP

For example, to begin to materialize MOTRA, the Intersectoral Planning Pillar team opted for the creation of the Amazonia RAP Administrative and Planning Region, as suggested in Guideline 1. The proposal was approved in six departmental assemblies (Amazonas, Guaviare, Caquetá, Putumayo, Guainía, and Vaupés), as well as in the Fifth Commission of the Senate of the Republic. “With this, the Amazon RAP was created as an institutional figure with legal personality, financial autonomy and its own assets, whose purpose is regional development, investment

and competitiveness. This entity will oversee deepening the public policy guidelines designed by MOTRA”, explained Lara.

Amazonia RAP document

According to the Mid-Term Evaluation of Visión Amazonía, the creation of RAP Amazonía is “the most relevant institutional development of the program to induce changes in the regional scenario, make intersectoral pacts between Amazonia departments and development alternatives that enhance strategies to curb deforestation and reduce deforestation emissions”.

Mid-term evaluation

The Land Use Planning Model for the Amazonia region is expected to guide land use planning in the Colombian Amazonia region, in order to close socioeconomic gaps, improve functional articulation as a strategy for territorial balance, conserve the natural and cultural heritage, and strengthen territorial governance in order to promote a sustainable and differential development model for the Amazonia region. With a significant lead, which is exceeding three presidential terms.

The land problem in Amazonia

Whoever travels by car along the trails of Meta, Guaviare, and Caquetá, will get tired of seeing the same landscape: fences and fences surrounding pastures that were once jungle. The inevitable question will be: Who owns this or that? The answer from locals and authorities will almost always be the same: Nobody knows. You may see a farmer or a lonely little ranch in the middle of the fenced land, but it will be difficult to get any information from there. Often these same farmers do not even know who the boss really is.

A diagnostic commissioned by Visión Amazonía to WWF and the Foundation for Conservation and Sustainable Development (FCDS in Spanish), delved into this and other planning challenges³.

³ Regional strategic environmental assessment of the northwestern arc of the Amazonia.



ANGÉLICA VILLEGAS

General Coordinator of Amazonia RAP Administrative and Planning Region

Based on the contributions in the financial cooperation between KFW and Colombia in its Global REDD program for Early Movers (REM) - Payment for Results of Emission Reduction through Deforestation, the Ministry of Environment and Sustainable Development (MADS), has provided overall direction and technical guidance for the convergence of the various strategic sectoral and interdepartmental planning initiatives in the Amazon region.

To this end, it has articulated actions with the Administrative and Planning Region for the Amazon [Spanish acronym RAP], with the aim of strengthening its operational and technical capacity in the process of formulating the Regional Strategic Plan, so that it contributes to the global commitment to reduce emissions from the sub-national region of the Colombian Amazon, in accordance with the provisions of the United Nations Framework Convention on Climate Change and to contribute through the protection of forests with climate justice.

Thus, in an articulated manner, under the leadership of Pillar 2 of the Visión Amazonía REM programme, the diagnosis, planning and articulation of national and departmental planning and development instruments has been developed for programme actions that will enable the RAP to be the leading entity in the processes of territorial autonomy for the Amazon by the year 2034, with equitable social indicators, the reduction of social disparities, notably improving the living conditions of its inhabitants, enhancing infrastructure and intermodal transportation across its territory, as well as being a national benchmark in ecosystem protection, cultural heritage and the transition towards becoming a Territorial Entity Region.

Hence, in pursuit of this objective, the strategic and programmatic organization of the region is consolidated, incorporating extensive engagement from sectors, labour unions and multiple

stakeholders within the territory. This is being done in accordance with initial consultations with indigenous communities and acknowledgement of the region’s agricultural dynamics. In alignment with the principles outlined in the proclamation of the regional mandates within Law 1962 of 2019 and National Decree 900 of 2020, three overarching territorial phenomena have been conceptualized. These phenomena hold cross-departmental significance for the comprehensive advancement of the region, namely:

1. The Amazon: our life biome for planetary existence.
2. Connectors of life: infrastructure and competitiveness for the Amazon.
3. Equity, collaborative governance and good government

Building upon this characterization of regional circumstances, the Regional Strategic Plan is formulated as the preliminary instrument of comprehensive planning. This plan integrates facets of development and organization in harmony with the Land Use Planning Model [Spanish acronym MOTRA], along with the alignment to the Amazon Sustainable Intermodal Transportation Plan [PATIS]. Additionally, it takes into account various documents produced by both national and international sources.

It is important to emphasise that a substantial step has been taken in the organic and functional consolidation of the RAP, to activate with planning tools, a first-order actor in the governmental exercise for the protection of the Amazon biome.

The collaborative effort between the Visión Amazonía REM programme and the RAP establishes the institutional foundations for the collaborative governance practices that are essential within the territory. This partnership not only serves the immediate region but also projects Colombia as a life-force powerhouse from the Amazon



MAGDA CONSTANZA BUITRAGO

Advisor to the Vice-Ministry of Infrastructure. Ministry of Transportation

The transportation sector has been my home throughout my professional life as a Civil Engineer, I have been a public servant by vocation and I see in this work the opportunity to contribute to the development of the country from the professional expertise acquired from the national perspective, seeking the approach to the territory, the means of transport and the environment of the road routes mainly; thus, a true approach to local realities with the opportunity to generate tools that contribute to the comprehensive solution of their needs.

A little more than 10 years ago I had the enormous opportunity to learn and work on a new vision of sustainability from the understanding of the effects that human beings exert on the environment and natural resources. This was due to my approach to the environmental sector and its institutions, which planted in my heart a particular interest in working in an articulated way in the care and preservation of nature between the transportation and environmental sectors. As a consequence, attending to the needs of the Amazon Territory and its vulnerabilities and the bad practices that continuously threaten the lungs of the world, we undertook an articulated work with the Environmental sector, to build in a participatory manner with the territory, a planning instrument that guides the development of a transportation system according to the particularities of this region,

where opportunities are present, due to its vast jungle extension that houses the largest variety of freshwater fish on the planet and a great variety of mammals and where the rivers become true highways to allow the most remote populations to have communications and the possibility of supplying their needs.

The Amazon Sustainable Intermodal Transportation Plan [PATIS] is an example of articulation between the environmental and transportation sectors, which began more than four years ago, with the participation of national, regional and local institutions, together with the interests and dreams of the communities. With this public policy instrument, the aim is to have an impact from passenger and cargo transportation in the Amazon territory planning and to contribute to a more sustainable development model, in accordance with the environmental determinants and the needs of its inhabitants.

It is time to shake hands with this half of Colombia, where the cultural and environmental wealth is gigantic but with which we have to compensate a historical state debt that allows reducing the gaps of poverty and inequality, through the provision of adequate channels for mobility and communication of the inhabitants of the Amazon, from a clear awareness of environmental responsibility and sustainability of natural resources, promoting their care and preservation.

According to the Gini Land Index, the region reflects one of the highest inequalities in rural property in Latin America and the world. For example, in the department of Putumayo there was “a very high concentration of rural property in the municipalities of Mocoa, Villagarzón, Puerto Asís, Puerto Guzmán, all of them above the national average”. The municipality of Leguízamo has the highest concentration in the entire study area with an index of 0.96. The pattern is repeated in Guaviare and Caquetá.

The 2018-2022 National Development Plan recognized this situation: “Several factors explain the increase in deforestation, but there is consensus that land grabbing and the expansion of the agricultural frontier are the main drivers of ecosystem transformation”.



Several factors explain the increase in deforestation, but there is consensus that land grabbing and the expansion of the agricultural frontier are the main drivers of ecosystem transformation



The 2018-2022 National Development Plan

To counteract the problem of informal land ownership, Visión Amazonía, in partnership with the National Land Agency, is promoting a program that combines legal security as a pillar of comprehensive rural reform, with the country's conservation agenda. This alliance seeks to close one of the most deeply felt gaps of the Colombian farmers, and addresses the historical demand associated with access to land, while moving towards the stabilization of the agricultural frontier, facilitating forest conservation initiatives and lines of intervention that work in two areas (unallocable forest reserve zone and allocable national vacant land) with three lines of action. On the one hand, in forest reserve zones under Law 2nd of 1959, the line of work focuses on granting rights of use. In addition, in areas not classified as forest reserves, two lines of work were

focused on: Land appraisal for the allocation of vacant land, and property appraisal for the formalization of private land.

The granting of the right of use is a figure of co-administration, materialized in a contract and can only be done in unassignable vacant land of the Nation. It is a strategy to consolidate conservation fronts without ceding property rights to their occupants, but it does recognize their activities, the pressing needs that must be met from the productive point of view, and the fundamental role that these families play in conservation. Thus, the subjects of the social organization of property: Farmers, workers and associations, organizations, and cooperatives with agrarian vocation, with insufficient or no land, are now agents of transformation of their territories. In this context, sustainable productive activities associated with family agriculture and forestry development can be carried out, aimed at improving the environment and favouring the lives of the inhabitants, considering the cultural aspects of the population. For example, with the cultivation of crops, sustainable productive projects, and sustainable management of forests, in addition to having the peace of mind and security of using the land to improve the quality of life.

The land appraisal for the allocation of vacant lands is the first phase to identify the level of susceptibility of lands and individuals to access the Nation's vacant lands and be able to become titleholders and owners. Decree Law 902 of 2017 establishes that “the allocation of vacant and state-owned lands to natural persons, will be carried out through UAF systems (Family Agricultural Unit); on the other hand, farmers or solidarity economy organizations may be awarded lands in common, sharing ownership, if they so decide. The allocation of vacant land is carried out in areas targeted by the Ministry of Agriculture and Rural Development (MADR in Spanish), which guarantees that there is an articulated intervention by the State, ensuring that productive activity is sustainable over time. It is important to note that, where applicable, direct awards will be made through joint titling, to guarantee women their property rights”.

Finally, the land appraisal for the formalization of presumably private and unregistered properties, is carried out by establishing the private properties that require the adoption of a clear route to formalize and register them. Subsequently, in Phase 2, these private lands will be formalized through the corresponding administrative actions and documents, and will be duly registered with the Authentic Instruments Registry Office, and farmers will become owners. The formalization and legality of land tenure allows farmer population to have legal security and access to credit and institutional programs that promote sustainable production.

Another part of the efforts of the Intersectoral Planning Pillar, has focused on rethinking transportation infrastructure and territorial connectivity, following Guideline 5. Visión Amazonía is promoting the Amazon Sustainable Intermodal Transportation Plan (Patis in Spanish), with the governance of the Ministry of Transportation and the participation of sector entities, such as the National Infrastructure Agency (ANI), the Maritime and River Sub-Directorate of the National Roads Institute (Inviás) and Aerocivil, as well as the National Planning Department. The idea is to study the feasibility of integration and complementarity of land, air and water modes and means of transportation, both for cargo and passengers, without triggering new deforestation pushes.

Everyone who works for the Amazonia knows that the current trend in road construction represents a great danger. Every time a new road is opened in the Amazonia, a new door to deforestation is opened. The Amazonian Network of Geo-referenced Socio-environmental Information estimates that the Colombian Amazonia has a total of 32,780 km of roads from level 1 to 7, with level 6 and 7 (tertiary roads) being the most extensive, with a total of 23,407 km. Of this total, 2,336 km are located within indigenous reserves, and 7,975 km in protected areas. The same report estimates investments in road infrastructure for the areas prioritized by the peace agreement of COP 1.38 trillion from resources of the General Royalties System (SGR in

Spanish), to which approximately COP 1.2 trillion for post-conflict tertiary roads, managed by departmental governments, must be added.

“When rethinking the territorial planning of the Amazon region, we have the obligation to analyse short, medium- and long-term strategies”, says José Yunis, aware that rethinking a whole new connection and transportation system for half of the Colombian territory is not something that can be achieved overnight. On the way we visualize and transport personnel and cargo, there will be higher or lower deforestation rates, explains José Yunis. It is one thing to travel by river, another by plane and another by road. All lead to different deforestation scenarios. To this end, this plan is being formulated with a long-term vision to guide the transportation sector, considering its own impact and how to mitigate it.

It makes no difference whether we are transported by road, water, or air in terms of deforestation. Yunis does not forget the look on the faces of several officers from the National Planning Infrastructure Unit when, in a technical meeting with these officers, he dared to say that perhaps the biggest deforesters in Colombia were sitting at the table with him at that moment. I was trying to explain that road construction, transportation, housing, mining, and hydrocarbon plans, all to a lesser or greater degree, are deforestation drivers when not carefully planned. “I don’t think it had ever crossed their minds that what they were doing had anything to do with deforestation”.

“When rethinking the territorial planning of the Amazon region, we have the obligation to analyse short, medium- and long-term strategies”

José Yunis Mebarak

Visión Amazonía REM Program supported 16 municipalities with the update of their Land Management Plans for compliance with Ruling 4360 of 2018.

Photo: Héctor Suricata



BLANCA HELENA SOLER POVEDA

Executive Director of the Sierra de la Macarena Tourism Corporation - Natupaz

This political scientist, specialist in Government and Territorial Public Management and candidate for a Master's Degree in Local Development Studies is a citizen aware of social needs and planetary environmental degradation. An exceptional leader who stands out for motivating communities to generate strategies and actions that can reverse environmental damage, preserving and caring for natural resources, understanding that they can take advantage of them through responsible and sustainable use.

With the signing of the Peace Agreement, as a scholar of political, social and human sciences she began to worry about the lack of planning for sustainable development, considering that the municipalities in southern Meta could reach a significant mass tourism with the opening as an emerging territory in the post-conflict, motivated by natural resources.

After visiting the territory and interacting with the communities of the municipalities of Uribe and Mesetas, in order to generate awareness of what was coming, she joined a venture with Anderson Tapiero from the municipality of Uribe as pioneers of responsible tourism. There she did her thesis research on tourism and local development in the post-conflict. In this process she participated in the tourism roundtables, forums and discussions, as new entrepreneurs interacting with other tourism

entrepreneurs in the region, who with the same expectations and concerns formed the Sierra de la Macarena Tourism Corporation - NATUPAZ.

NATUPAZ is made up of 9 organizations from the municipalities of Uribe, Mesetas, San Juan de Arama, Lejanías and Vistahermosa; it has a regional scope of action and clear objectives of preservation of natural resources and the strengthening of sustainable local development based on nature tourism as an opportunity for the construction of social fabric for the consolidation of peace and to improve the quality of life of the inhabitants of what is called the Sierra de la Macarena route.

In the course of the corporate process with private and collective efforts, they came across Visión Amazonía, a REM program that supported this local process that promotes nature tourism, a sustainable and profitable productive alternative that seeks to contain deforestation in the Amazon biome.

This project had several investment actions along the entire route of the five municipalities in the adequacy of light infrastructure for access and exit of the tourist circuits and their respective signage; fifty young people were trained as rafting guides in the Güejar Canyon in courses on whitewater rescue, first aid, rafting and kayaking, which enabled them to work in the activity in accordance with the

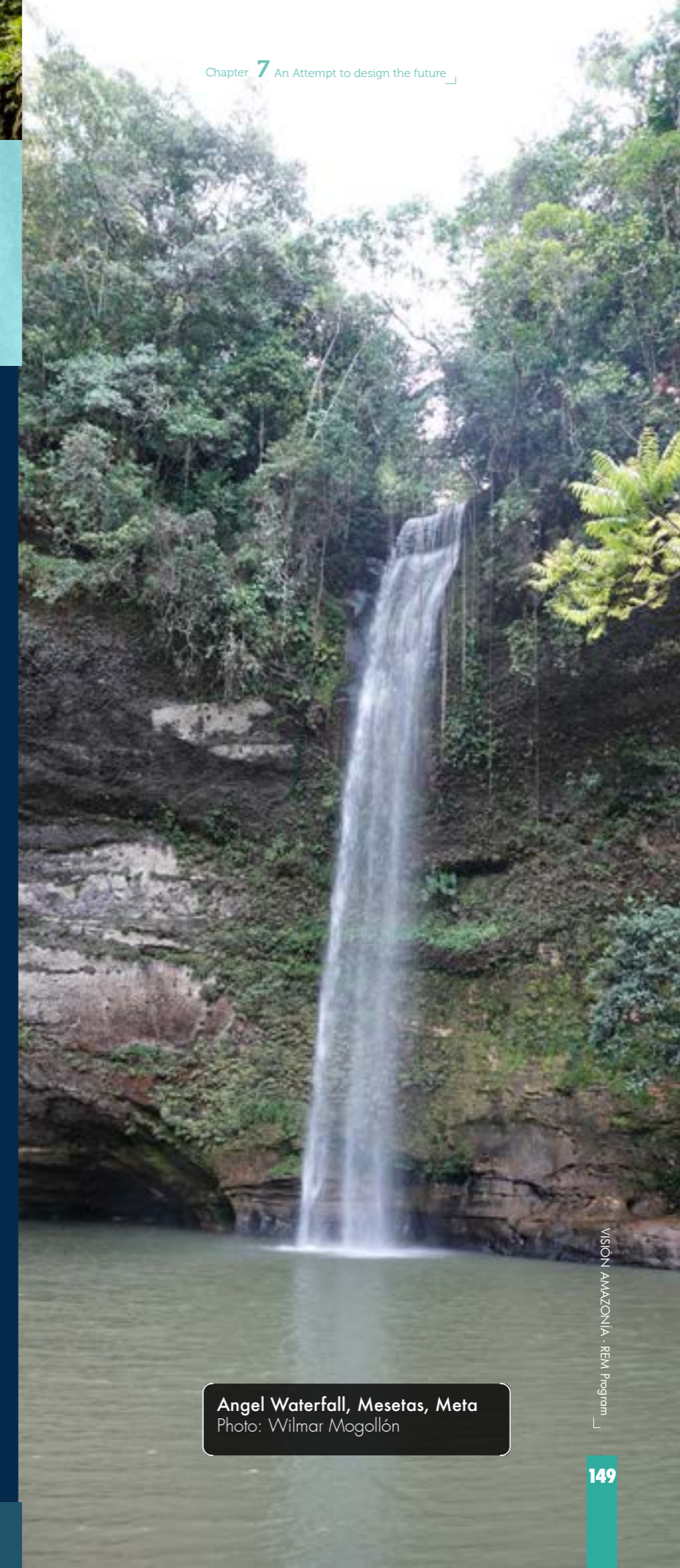
requirements of the technical standards; these are children that "we took them away from the war, from the streets, they stayed in their territory with the opportunity to improve their income and that of their families", says Blanca Helena.

With equipment for tourism operations, the 9-member companies of NATUPAZ and 15 external companies were certified and strengthened in the rafting technical standard.

Today, with the support of the Visión Amazonía Program, NATUPAZ affirms that tourism has been significantly boosted, the investment has generated greater operational capacity and quality in ecotourism and adventure tourism services of local companies in each of the municipalities, which means a greater tourism offer, generating local employment throughout the value chain, which allows the promotion of a safe and quality destination.

The tourism offer was expanded in other tourism business niches, such as river tours and bird watching in Vistahermosa, and paths were created to improve access to tourist attractions.

Today there is greater participation of the communities in the value chain, more associative processes were promoted and greater environmental awareness with the care of natural resources as the basis for the transformation of the sustainable economic model.



Angel Waterfall, Mesetas, Meta
Photo: Wilmar Mogollón



Sacha inchi is a promising species in the Colombian Amazon. Mr. Olimpo Vallejo and his family are implementing agroforestry plots with sachu inchi, copoazú, plantains and timber. Additionally, they are members of the ASOPROAGRO Association, which today has a processing plant for the extraction of oil and flour.

Photo: Héctor Suricata



Chapter

8

Governing in
the forest

VISIÓN AMAZONÍA
REM Program



Team of the Improvement of Forest Governance Pillar of the Visión Amazonía programme. In this photograph: Roberto Aguirre, Marco Ortíz, Juan Camilo Jiménez, Laura Sáenz, Virginia Salazar, Diego Tarazona and José Ignacio Muñoz, Pillar Leader.

Photo: Héctor Suricata



In 1961, Father Enrique Pérez Arbeláez, a pioneer of Colombian environmentalism, engaged in a public controversy with one of the most renowned businessmen of the time, Oliverio Lara Borrero. The economic and cultural logic that has guided the clearing of the jungle in Colombia is delineated in that disagreement. The father's confrontation with the businessman symbolizes quite well the stubbornness to recognize the country's forestry vocation, the inability to value and understand the natural wealth of this territory, the difficulty to build a better governance of the forests and, ultimately, to stop the abrasive deforestation that extends over the Amazonia.

Impressed by the destruction in the forests bordering the Magdalena River, the father wrote in 1961, in his usual space in the newspaper *El Tiempo*, an article entitled "El paraíso incendiado" (The burned paradise). As he himself later recapitulated: "in it he anatomized slash and burns... the enormous waste of wood; the preparation of erosion; the general ignorance of the interactions and the carelessness of the authorities who should control that such outrages against the natural resources of Colombia do not occur"¹.

Lara Borrero, who had served as mayor of Neiva, governor of Huila, departmental deputy, president of the Sociedad de Agricultores de Colombia [Farmers Society], of the Federación de Cacaoteros [Cocoa Growers], of the Federación de Arroceros [Rice Growers], member of the Board of Directors of the Banco Cafetero and president of the Asociación Nacional de Ganaderos [Breeders], was shocked by the father's words. Lara rebuked the father because according to him, "the lands were to be used for cattle ranching... that the forest was a nuisance [and] that the best way to eliminate it was indiscriminate logging and burning"².

Father Pérez Arbeláez argued in a premonitory way, in another column, that these "were economic methods for today and a disaster for tomorrow", that it was an aberration to suppose that "every area covered with forest

is worth less than cleared and represents less revenue for the landowner. It is generally considered useless and is not incorporated into the economy. The pontiffs of deforestation believe that, for their benefit, every tree, every plant, every fern must disappear. They also do not foresee the damage they do to themselves and to their region.

A few years later, Lara Borrero was assassinated in his hacienda Larandia, near Florencia (Caquetá), on April 27, 1965³. The motives were never clear. Over the course of several years, the businessman from Huila had monopolized land in the Yari Plains and built an entire empire in the middle of the jungle: 31,500 hectares divided into 19 ranches; 34,500 head of cattle; an immense building as main house; an airport 1860 meters long and 40 meters wide for large airplanes; his own roads and vehicular bridges; three intercommunicated dams with a total area of 84 hectares; a modern and complex workshop for the assembly and repair of bulldozers, graders, tractors and dump trucks; nearly 500 workers, 140 of whom were permanent, with access to housing, schools and recreational facilities for their children.

—How did you manage to establish this great emporium on the edge of the jungle and with severe limitations in road and energy infrastructure? a reporter of the time asked him.

—I have put all my efforts into this hacienda. The creation of this company was completely epic. It was necessary to open the belly of the jungle in open fight against the aggressive nature; to overcome long distances by incipient routes; to dominate the arid flow of the rivers; to fight without rest against adverse elements and circumstances and to come out ahead in time without limit⁴.

Lara Borrero's logic, that of "opening the belly of the jungle in an open fight", was imposed in the following decades despite the fact that, as Father Arbeláez warned, it was wiser to learn to take advantage of its timber and fruits. It is the same logic that has guided the large landowners who still today monopolize large tracts of land in the Amazon. It is



ROHYMAND GIOVANNY GARCÉS REINA

Mayor of Calamar, Guaviare

As a dentist by profession, he came to the municipality of Calamar to do his rural year, a prerequisite to obtain his professional degree. He stayed in Calamar, raised a family and this is the second time that the community elects him as municipal mayor.

Rohymand Giovanny Garcés entered the municipality with the difficult task of generating awareness, fostering love for the territory and respect for the environment, mainly among young people. He says that his main challenge has been to promote the possibility of living in the territory without affecting it.

Deforestation between 2012 and 2015 was not so marked, but between 2017 and 2019 this phenomenon increased, mainly on the road that connects Calamar with Miraflores, a road built about 40 years ago, but where colonization is entering and where deforestation is increasing.

This Mayor has been a fundamental actor for peace and forest conservation in a municipality that has about ten thousand inhabitants, mostly in rural areas.


The local leader and his team know that the real wealth of the region is in the forests, in conservation and in the sustainable use and exploitation of natural resources, so they are very committed, they have bet on this new development model promoted by Visión Amazonía, which is the forest economy.

"Community participation, training and education of our leaders has been fundamental,

the fact of involving them in the whole process has been a success. For us, Visión Amazonía is a strategic and motivating partner, not only to fight against deforestation, but also to give the community the opportunity to make itself visible in other aspects".

The forestry development model that is gaining strength in the region is promoting the transition from an extractive development model to one that places value on the forests, converting the active deforestation nuclei into Forest Development Nuclei [NDF], a community and regional commitment, where the communities of Los Puertos NDF are today an example of community participation, union and will.

"Visión Amazonía has given us the opportunity to learn, to know, to love our environment. We have started a difficult task, it is a gradual process, but we believe it is a very strong commitment because we really want to lower that deforestation, that Los Puertos NDF becomes an example for humanity and we are grateful because Visión Amazonía helps us to make visible our communities in the villages of Puerto Cubarro and Puerto Polaco, peasant communities organized around the sustainable use of the forest, committed to preservation, which show that you can live from the forest without knocking it down and that is the window that Calamar was wishing for".

Los Puertos NDF has a Community Forest Management Plan  approved by the environmental authority for 6291 hectares of forest.



¹ Environmental journalism in Colombia. Maryluz Vallejo.
² Environmental journalism in Colombia. Maryluz Vallejo.

³ Bolaños E. Tranquilandia and Lara family lands. 2017
<https://www.elespectador.com/colombia-20/conflicto/itranielandia-y-las-tierras-de-la-familia-lara-articulo/>



The Forestry Development Nucleus are the bet to move from deforestation hotspots to a sustainable development model that aligns with the forest vocation of the Amazon region.

Photo: Marco Ortíz

the logic that has also guided migrant settlers seeking a better fortune. The logic of the institutions that influence these territories.

José Ignacio Muñoz, leader of the Forest Governance Pillar of Visión Amazonía, knows this very well. Every time he asks a settler settled in the areas prioritized by the Visión Amazonía program why they cut down the forest, the answer is always the same: “because the forest has no value”. Muñoz has been working in the Colombian Amazon for more than 20 years. He worked at the Putumayo Autonomous Corporation and for 16 years at the Corporation for the Sustainable Development of the Southern Amazon (Corpoamazonia). The challenge has been the same: “How can we give value to the forest, both to timber and non-timber products? How can we get farmers to settle in their territory and consider the forest as something that must be protected, that has value and that will help improve their standard of living?” Muñoz explains that Visión Amazonía is precisely a new vision of development for the region, where there must be a new way of seeing the forest.

It is paradoxical, and almost a sign of advanced myopia, that despite the fact that 80% of the country’s soils have a forestry vocation, Colombia lacks a forestry agency or national forestry service. Furthermore, the country imported some 669,320 m³ of wood (wood boards and fibres account for 81%) in 2019 and exports barely came close to 264,519 m³. On the other hand, the development model adopted by Colombia, following the logic of Lara Borrero and hundreds of cattle ranchers, led to an unbelievable situation: it is estimated that 33.8 million hectares have been allocated nationwide to extensive cattle ranching and pastures, but 10.2 million hectares in this activity would be sufficient to obtain the same productivity.

Felipe Fonseca, forestry engineer and director of the Rural Agricultural Planning Unit, stated in a panel convened by the National Environmental Forum in 2020, that “it is absurd that in Colombia we are importing wood, having such a great potential”. Chile, on the other hand, has managed to make wood products

the second largest export item. It is estimated that at least 5,000 products with which we have daily contact are derived from trees.

However, as is often the case in such a legalistic country, forestry regulations are profuse. Placed in a timeline, the Second Law of 1959 establishes a central precedent in the legal framework for forestry development, and despite its antiquity, it already proposed the development of a forestry economy. The journey through this timeline continues in 1974 with the Natural Resources Code; the forestry harvesting regulations in 1996; the Forestry Law in 2006, which was declared unconstitutional; and as of 2008, more specific regulations for both the environmental and agricultural sectors. However, these developments to date have not given the impetus to the use of the forest as a necessary strategy for a sustainable economy and also for conservation.

GR National Forest Inventory

Facing this scenario, José Ignacio Muñoz explains that the actions of the Forest Governance Pillar have focused on three components: forest resource planning, strengthening of the environmental authority and participatory processes for community forest management, environmental education and communication for conservation.

Forest resource planning

Whoever takes a flight to San José del Guaviare, from there embarks on the three-hour trip to the municipality of Calamar and then heads south, two hours along the trail that has been the torment of the settlers for decades, a muddy track in winter and a dusty, brick-coloured asphyxiating road in summer, will finally come across the deforestation frontier. There you will witness one of the riskiest bets, because of the difficulty of its implementation but it is the most important issue of the Visión Amazonía program: the forest development centres. In this case one known as Los Pueritos. This initiative is part of a strategy that seeks to demonstrate that the standing forest with proper management is more profitable than pastures in the Amazon.





“The forestry development nuclei are among the most ambitious bets of Visión Amazonía”, says José Yunis. “We need to create a forest economy in a country that is stunned in its forestry development. What we do is to tell people at certain points of the deforestation arc, that they should not cut down, that there is value in the forest. We do technical studies and tell them that there are alternatives to the cow in the forest and that they can make more money”, he says.

Marco Ortiz, forestry engineer and professional of the Visión Amazonía Program in the Department of Guaviare, has accompanied the initiative since its conception two years ago. At first it was decided to work with the community of El Retorno, but one of the local leaders responded: “You can’t live on the forest, you’re crazy”. In the midst of the frustration, Marco Zapata, a leader in the Puerto Polaco area, appeared, interested in taking the risk of the bet together with his neighbours in the Puerto Cubarro area, a total of 23 families grouped in the Coagroitilla association.

In October 2019, after two years of work, the 23 families presented the Los Puertos Community Forest Management Plan for review to the Corporation for the Sustainable Development of the North and East Amazonian [CDA]. The plan described the sustainable management of an area of 8,239 hectares, of which 6,291 are harvestable forests. Instead of felling each of these hectares to, perhaps, feed one cow per hectare, the families harvest six trees per hectare, keeping the rest of each Annual Felling Unit [UCA] and each year they extract timber (no more than six trees per hectare) from an area of approximately 250 hectares. The following year they move to another area of the forest while the previous one recovers. This rotation cycle over 25 to 30 years means that at the end the trees from the first area intervened have been reborn and grown to restart the process. In a forest that falls year after year under the flames of land hoarders and settlers, and in a country where more than 50% of the timber traded is illegal⁵, a community willing to implement sustainable forest management seems utopian.

Based on the Community Forest Management Plan of Los Puertos Forestry Development Nucleus, the CDA issued Resolution 437 of November 30, 2021 approving the Community Forest Management Plans [PMFC] and authorizing 25 Annual Felling Units with 6,291 hectares under Forest Management: 5,387 hectares of Natural Forest, 4,701 hectares of Usable Forest, 686 hectares of Strict Conservation Forest.

The area of UCA 1 is 219 hectares

The duration of forest harvesting is 25 years.



The forestry development nuclei are among the most ambitious bets of Visión Amazonía



José Yunis Mebarak

“Gaining confidence is difficult and the slightest mistake destroys that confidence”, reflects Marcos Ortiz, who rides his motorcycle several times a month along the road between San José del Guaviare and Los Puertos to resolve some of the thousand obstacles that have appeared.

If the calculations made by the consultants and technicians are correct, the families of the two villages should be able to produce about 2,000 m³ of wood annually. The accounts derived from this figure are as follows. If they manage to sell each cubic meter at \$1,000,000, they would have a total income of \$2,000,000,000,000 per year. If the yields are distributed among the associates, each one would receive \$1,200,000 per month. 2.000 m³ * 1000000 = 2.000.000.000
65% production costs. \$1.300.000.000
Profitability: \$700.000.000

Then comes the equitable distribution of benefits, which has been previously agreed upon in a participatory manner by the associates.



The Amazon Forest Incentive is a scheme of Payment for Environmental Services - [Spanish acronym PSA] that aims to maintain the forest standing while transitioning from an extractive development model to a sustainable forest-based model.

Photo: Laura Sáenz



FANNY OTAYA
Tribute to a great friend and colleague

THE INJUSTICES OF A COUNTRY ENTANGLED IN PUBLIC ORDER CONFLICTS

In the areas through which Fanny travelled, there was a presence of illegal armed groups that often act as authorities in the territory. Precisely, one of the instructions of the illegal groups is to prohibit the transit of vehicles with the windows up and the use of helmets for motorcyclists. It was this situation that triggered a tragedy that no one would expect.

Fanny was returning from a working day with one of her co-workers, when in a curve several dogs came out to bark at the motorcycle in which they were riding, causing the accident. The pavement was wet from the rain, her partner lost control of the motorcycle and they fell. Fanny hit the pavement hard, causing severe cranioencephalic trauma and convulsed at the scene.

Fanny Yineth Otaya Cabrera, a young forestry engineer, was born in Pitalito Huila, but her family came from Villagarzón, Putumayo. Her upbringing was based on a very catholic religion, being one of her sisters a nun. She was the fourth among seven siblings (6 females and one male). She stood out for her charisma, tenderness and character. She was a very good neighbour, friend and family member. She graduated from high school in Villagarzón and made the decision to settle in Ibagué to study her career, she graduated as a Forestry Engineer from the University of Tolima and also as a specialist in project management.

Her love for environmental conservation, community and team work, made her start

her professional career as an official of Corpoamazonia for the department of Putumayo; then she worked in an environmental foundation and then returned to Corpoamazonia's site in Caquetá, residing in the municipality of Cartagena del Chairá, where she became known in different entities. In search of better opportunities, she applied for a call of the REM Colombia Visión Amazonía program, which she won as an agricultural and environmental extension professional, starting in pillar 1 and then, under a call, for pillar 3 agricultural-environmental development.

Her mission was to visit 40 rural properties to accompany rural families in the implementation of sustainable production models, framed in the environmental forestry economy, in activities aimed at the sustainable use of the forest and the maintenance of areas for conservation.

Behind this brave engineer there was a small and tender girl, collaborative and very witty, an excellent friend and confidant, always ready to give the best of herself. Today, we remember Fanny for her joy and smile. We will never forget that great companion who photographed animals, who recorded videos with her beneficiaries, who made her colleagues laugh, because she always, always had a smile to offer. To a great professional, to that little person who left a mark among those who met her. To a being without equal who will be remembered forever.

Each beneficiary must receive at least one legal minimum wage in force in Colombia - SMLV and the rest of the resources are destined to social investment, a community work, the UCA Census, working capital, etc.

Up to this point we are talking about income derived from raw timber. If value is added in the Forest Transformation Centres - CTF that are budgeted and advancing, the profitability of the NDF and the community will be much higher.

OR Los Puertos PMFC

The forest inventory carried out in this area identified 12 timber species and two non-timber species with commercial potential. For these families, switching from cattle ranching to forestry not only requires time, but also training because most of them know how to manage cattle and some crops, but very few know about forest management and timber processing. As this is a medium and long-term commitment, Visión Amazonía also found it necessary to create a temporary payment for these families through a mechanism called the Amazon Forest Incentive [IFA]. One of the reasons for the attachment to the livestock economy is that it generates an immediate cash flow, while betting on a forestry business involves a preparation of several years without income. The incentive manages to alleviate this situation until the use of the forest reaches its maintenance by its own means. "In the forest development nuclei, the forest is the main component in the design and land use planning process and guides the definition of restoration areas, biological corridors, agroforestry systems, livestock reconversion, nature tourism and carbon markets, making the use of timber and non-timber resources, as well as ecosystem services, a true conservation strategy and closing the agricultural frontier in the Colombian Amazon", explains José Ignacio Muñoz. The nuclei must have permits from the environmental authority and the obligation to keep the forests standing in perpetuity. They also have forestry certification and, in order to overcome the cattle-raising culture, a Technical and Business Social Accompaniment Plan known as Pasote is structured. "This is a genuine result of Visión Amazonía", notes José Ignacio Muñoz, "it is a novelty in our environment, it has technical and scientific support and has already shown its success

in stopping deforestation in other places, closing the way to the tragedy of the commons".

In total, the Forest Governance Pillar has prioritized three forest development nuclei. In addition to Los Puertos in Calamar (Guaviare), there is the Orotuyo nucleus in Solano (Caquetá) and Nueva Ilusión in Cartagena del Chairá (Caquetá). The commitment to the forestry development nuclei has been accompanied by technical, economic and financial feasibility studies to create, together with the harvesting units, processing centres to add value to the timber. The Governance Pillar also invested resources in the formulation of Forest Management Plans for Guaviare (66 conglomerates), Mecaya-Sencella (44 conglomerates), Siare-Iteviare (23 conglomerates) and Tarapacá (44 conglomerates).

The forest is not just wood

José Ignacio Muñoz highlights another important aspect in building the path towards a forest economy. These are projects to take advantage of the forest's non-timber products. One of the initiatives already underway is the Forest Management Plan for the Acai Palm (*Euterpe precatoria*) in 650 hectares of natural stands, which will enable the community of the Mecaya Inspection, municipality of Puerto Leguizamo, Putumayo, to obtain one of the largest permits in Colombia for the harvesting of non-timber forest products.

Visión Amazonía has also inaugurated 4 storage and processing plants for non-timber products such as Acai, Sacha Inchi, rubber and canangucha, and has also allocated resources to strengthen areas dedicated to forest management within the Autonomous Corporations. These resources have enabled the hiring of staff to provide technical assistance to users interested in accessing forest resources.

En In the municipalities with the highest deforestation rates, such as San Vicente del Caguán, Cartagena del Chairá and Solano, in the department of Caquetá, and Puerto Guzmán and Puerto Leguizamo, in the department of Putumayo, forest governance agreements were signed to work on training leaders and school environmental projects, and support was provided to the Guaviare and Caquetá Forestry Roundtables.



Strengthening forest control and surveillance

In February 2022, the Prosecutor General's Office charged a person for the first time for the crime of deforestation⁷. The delay was due, among other reasons, to the fact that Law 2111 on environmental crimes was only enacted in July 2021. The accused was Marco Aurelio Quiroga Tovar, accused of razing 83 hectares of land that housed 178 head of cattle in the Serranía Los Picachos National Natural Park (PNN), between San Vicente del Caguán (Caquetá) and La Uribe (Meta). Although the news was reported by many media outlets, the real significance is insignificant considering the 150,000 hectares deforested year after year.

In a country with such a high rate of illegal logging, any forest harvesting strategy requires the strengthening of forest control and surveillance. The autonomous corporations and the institutional framework in general are very weak in the Amazon, which is why Visión Amazonía is trying to strengthen local institutional capacity. The important thing is that these strengths will remain in the State when these programs do not exist. For this reason, around USD 650,000 per year was allocated to hire an average of 51 professionals for the direct service of the three environmental authorities in the Amazon, Corpoamazonia, CDA and Cormacarena, to provide logistical support for control and surveillance and for the forestry development nuclei.

Visión Amazonía has been a program focused on monitoring deforestation and proposing economic and social alternatives without getting involved with police actions to control deforestation. However, in addition to the efforts of the environmental authorities, both the Armed Forces and the National Police in recent years have attempted to increase their control operations. Thus, in July 2020, President Iván Duque himself officially launched the "Artemisa Campaign against deforestation in Colombia"⁸. From the municipality of La Macarena, in Meta, the President explained that his objective was to "stop the deforestation hemorrhage that has destroyed 200,000 hectares of forest annually in the country in recent years". The strategy, under

the leadership of the Armed Forces and the National Police, with the support of the Attorney General's Office and the accompaniment of the Ministry of Environment, National Natural Parks, IDEAM, among other entities, materialized in a first intervention in the Serranía de Chiribiquete National Natural Park. According to President Duque, "it allowed the recovery of 120 hectares of forest".

For Julia Miranda, former director of National Parks, one of the great frustrations in the fight against deforestation continues to be the slow reaction of the security forces to the information provided by the monitoring system. "The current models are practically allowing us to predict what is going to happen in certain territories and even so, neither the Public Forces nor the Prosecutor's Office and the entire interdiction apparatus are able to react adequately to stop this deforestation".



Visión Amazonía has also inaugurated 5 storage and processing plants for non-timber products such as Acai, Sacha Inchi, rubber and canangucha



José Yunis Mebarak

The former Minister of Environment, Luis Gilberto Murillo, has a similar perception: "many efforts have been made to coordinate with the security forces, the Attorney General's Office and judges, but in this aspect, we have not done very well". Murillo does not forget an explanation of the limitations given to him by a general after a tense meeting: "... this is like a blanket, that is, if I cover my feet, my head is uncovered, there are not enough resources".



Working together with the communities, we strengthen their knowledge of the forest through participatory community forest monitoring exercises.

Photo: Visión Amazonía



Community participation, environmental education

Escuela de Selva (School of Jungle) is another of Visión Amazonía's commitments to transform a culture that was established in this region and that does not know the tropical forests in depth. If the objective is to live from the forest without cutting it down, that is, to break the tradition of "opening the belly to the jungle", it is imperative to train a whole new generation of Colombians capable of understanding this challenge in its complexity.

Escuela de Selva video


To contribute to this and after a year of design, on December 18, 2019 Visión Amazonía signed a contract worth USD 390,000 with the Universidad de la Amazonía to implement an Environmental Education Strategy aimed at training 600 presidents and community leaders from 13 municipalities with major deforestation hotspots in the departments of Caquetá, Putumayo, Guaviare and Meta in the sustainable use of the forest.

Escuela de Selva document

"We have to start forming a jungle economy, which is what we have not had, since we maintain an Andean economy based on agriculture and cattle raising", says José Ignacio Muñoz. In this sense, he concludes that the Escuela De Selva is one of the most pedagogical strategies that we have been able to implement with an enormous impact.

Escuela de Selva award

 <https://www.fiscalia.gov.co/colombia/noticias/fiscalia-realiza-la-primer-imputacion-por-el-delito-de-deforestacion/>

 <https://youtu.be/NThoNbvs70Y>





VIRGINIA SALAZAR

Advisor on Financial Instruments for Conservation

AMAZON FOREST INCENTIVE - IFA

In 2017, the optimism surrounding the impact that Visión Amazonía would have on the deforestation rate suffered a huge setback. That year, as an immediate effect of the peace agreements with the guerrillas, there was a 100% increase in deforestation in the Amazon. The figures showed that nearly 60% of this deforestation was concentrated in 12 municipalities in two departments (Caquetá and Guaviare). It became necessary to establish an action plan.

This was the origin of the idea of the Amazon Forest Incentive as a new experiment in payment for environmental services in Colombia. The economist Virginia Salazar, who has been at the forefront of the construction of this instrument, says that they began with a pilot focused on 300 families living in areas of high deforestation, but also near standing forest. These areas coincided with places where the Forestry Development Nuclei were already being promoted.

"The objective of the incentive is to change behaviour in the face of deforestation", explains Virginia Salazar. Three conditions were imposed to deliver the incentive: voluntary, transitory, focused and complementary to other strategies.

An analysis of the family economy led the Visión Amazonía team to calculate the opportunity cost at COP \$360,000 per month. "When we reviewed the income of these families, we found that they could save practically nothing. What we did was to try to recognize that savings".

Families who receive the incentive for a period of three years agree not to deforest on their land. IDEAM is in charge of verifying the forest cover on their land on a monthly basis to enable the payment. If any type of logging is identified, the beneficiary does not receive the next payment, but has a second opportunity. In the case of repeat offenders, their involvement is definitively suspended.

Visión Amazonía decided to work hand in hand with the Autonomous Corporations so that they could establish contact with the families and administer the program. Also, BanCo₂ was looked for as the financial platform for the actors.

"After two years of paying the incentive, we have confirmed that 97% of the beneficiaries comply with the commitment to maintain the forest," says Virginia Salazar. The initial pilot of 300 families was joined by another 2.573 a total of 120.263 hectares of forest are under conservation agreements under this modality

OR PPT presentation - IFA



We are implementing actions to strengthen forest governance with the participation of communities and rural educational institutions, especially to implement School Environmental Projects (Spanish acronym -PRAES) and Citizen Environmental Education Projects (Spanish acronym -PROCEDAS) in five municipalities with the highest deforestation rates.

Photo: Juan Camilo Jiménez



LUIS ALEXANDER MEJÍA

General Director of Corpoamazonía

SHARED ENVIRONMENTAL MANAGEMENT IN THE SOUTH OF THE COLOMBIAN AMAZONIA

The protection, conservation and recovery of the Colombian Amazonia is a joint and coordinated task between the State, communities, non-governmental organizations and international cooperation, a condition that demands a multidisciplinary, intercultural, community and interinstitutional approach.

Land use change causes different alterations among natural ecosystems, degrading, fragmenting, and reducing them, affecting the health of habitats, with the consequent loss of biodiversity and its ecosystem services.

From a landscape perspective, in the jurisdiction of the Corporation for the Sustainable Development of the Southern Amazon (Corpoamazonía), which includes 22,558,321 hectares of natural forest, 18,760,756 hectares of this forest still correspond to the matrix (the majority portion of the surface area, equivalent to 83%), so the challenge is not only to stop deforestation, but also to promote the forest economy, based on the implementation of forest development nuclei for timber and non-timber products.

In this sense, Environmental Land Use Planning in general and the formulation of forest management plans, will help to meet the challenges posed. The commitment of Corpoamazonía and the Visión Amazonía REM program of the Ministry of Environment and Sustainable Development (MADS), granted

the formulation of the Tarapacá Forest Management Plan (425,471 ha) in the department of Amazonas; the implementation of actions in the Yará Caguán Forest Management Area (686,771 ha) in the department of Caquetá; and the execution of the Mecaya Sencella Forest Management Plan (455,229 ha) formulated in the department of Putumayo.

Effective forest harvesting requires forest management plans, such as those we have formulated for 40,000 hectares of timber in the department of Caquetá and the technical study carried out for the harvesting of non-timber forest products (Acaí) on 604 hectares in the department of Putumayo. These inputs allow obtaining Environmental Licensing of the resource regulator through an associative mode, achieving community strengthening in social, administrative, and technical aspects.

Another significant action is the implementation of the Amazon Forest Incentive (IFA in Spanish), as a recognition of economic value that is given to the communities to conserve the forest in the properties, villages, and nuclei, located in the low intervention zone of the deforestation arc. This instrument contemplates a quarterly payment by Corpoamazonía of COP 900,000 per family for three years.

As of September 2022, with 760 active agreements signed, payments amounting to COP 3,400,000,000 have been made to

837 families, located in the municipalities of Cartagena del Chairá, Solano and San Vicente del Caguán, department of Caquetá; Puerto Guzmán, Leguizamo and four Community Councils of NARP communities (Blacks, Afro-Colombians, Raizales and Palenqueros), in the department of Putumayo. As a result of this strategy, an area of 50,629.38 hectares of natural forest will be conserved, in which, in addition, it is planned to invest a total of COP 8,640,000,000 for prioritized families.

It is essential to highlight the Forest Land Restoration Program, an initiative that arose in Corpoamazonía, and whose purpose is to restore land that has been deforested, through the establishment of protective-producing forest plantations and the management of natural regeneration in open or intervened areas in the past, by means of Finagro's loans granted by Banco Agrario de Colombia.

Inspired by this experience, Visión Amazonía, Corpoamazonía, and Banco Agrario de Colombia, have developed the "Green Financial Instrument" (IFV in Spanish) project, which recognizes up to 50% of the loan amount, in consideration for the establishment of a restored hectare, conditioned to the signing of a Conservation Agreement of at least 10 hectares of natural forest per family; this approach has achieved the conservation of 1,315 hectares by the Agreements mentioned above, and 485 hectares corresponding

to the agroforestry systems developed in the departments of Caquetá and Putumayo.

On the other hand, in the indigenous pillar of Visión Amazonía, six projects were worked on for a total amount of COP 4,949,585,500, of which Corpoamazonía contributed its own resources as consideration, for a sum of COP 261,370,000.00, aimed at strengthening traditional practices, support for their own productive systems, ecological restoration and food security in ethnic territories, and recovery of traditional practices of indigenous and Afro-descendant communities, among other actions. We are talking about 75 beneficiary communities, of which 74 are in the department of Putumayo, belonging to the Inga, Awá, Kichwa, Yanacona, Pastos and Cofán peoples, and one in the department of Amazonas, Nonuya de Villazul Indigenous Reservation, Puerto Santander township.

Finally, the development of productive sector activities carried out a diagnosis aimed at promoting landscape connectivity (Andes - Amazon), integrating the environmental compensation measures of licensed projects, defining priority areas for investment, conservation, restoration, bioeconomy and tourism, in a geographic area called the Putumayo - Caquetá interfluvium, in the department of Putumayo, as part of a pilot exercise for the application of the manual for the allocation of compensation for biodiversity loss.



MARCO AURELIO ZAPATA

Community leader of Calamar Guaviare, manager of Los Puertos Forestry Development Centre and Legal Representative of the Coagroitilla Cooperative, community company in charge of forest exploitation.

I arrived in this region on November 18, 1972. I was 15 years old. I came from Bogotá, but I am from Boyacá. I came with some cousins who told me: we are going to take you to Guaviare, because it was supposedly marvellous. When we arrived in Puerto Lleras we had to get into a boat. I was in Bogotá because my uncle had taken me with lies, he had told me "Son, come to Bogotá and I will help you to study", and the study he gave me was that he set up eight long shuffleboard courts and other small ones, and every day at 5:00 a.m., with that cold, I had to step on the court to organize and sell beer. That was the famous study that he gave me.

When I arrived, I looked at that little town and there were only small ranches, there was a store owned by a man named Benancio, a house owned by a man named Luis Patiño and the little house where they sold tickets. At that time what was transported was fish. You could see yellow fish, golden fish and they all went to Bogotá. Life was cheap. You could get 500 grams of fish for \$ 1 peso, 1 bunch of plantain was worth between \$ 3 to \$ 5 pesos, the arroba of yucca was \$ 3 pesos.

We came to start clearing the jungle, there were cattle, but it was very little, they were starting to build farms because the moral was to plant grass to be able to bring cattle. My cousins were paid \$ 500 pesos for clearing and clearing a hectare, that is like \$ 500,000 today.

With my cousins we chose a piece of land for us: from pipe to pipe. That time we arrived and burned that piece of land and began to plant corn, bananas and rice. But I always wanted to study, so I went back to Bogotá, but my father made me wait, he told me "tomorrow, the day after tomorrow and these days I would enrol", then I got a job in construction.

I returned to Guaviare again on January 20, 1982. Imagine, I earned \$150 a day and here I came to earn \$600 for the basic wage. Then they put me to collect up coca.

What happened is that I was helped by some environmental forums in Calamar. These forums were organized by Parks, Sinchi, the Corporation and the Mayor's Office, approximately in 2011 and 2013. As I have always been a leader, I have always liked working with communities, so I was invited to the forum. In those talks they exp-

lained about the forest. Practically everyone was destroying what they had.

I have always had the mentality that when there is a lot of one thing, it has its failures. So, I said: "everything is cattle and in case it can't be sold, what do you do, well, we're screwed". I thought: "what if I leave my farm just to sell them logs, because the day will come when they will not have a single tree to harvest logs, and I will have it and I will sell it to them, that would be my economy". At the time of the forums I had 100 hectares of weeds. I decided to put in 30 hectares of pasture and the rest I let them covered in scrub.

After that, once some engineers came and told me: "Mr. Zapata, look there is going to be a socialization of a project in La Ceiba, why don't you go and find out what it is about". That was between 2016 and 2017. So I went to La Ceiba and what they were offering was training, machinery, permits for timber production. But the people told them: "we want to be paid for taking care of the forest". Then I said, "our culture is not to beg, but to work. If we take care of the forest and work the wood, we will have an economy for life without bothering the State or anyone else".

With this Visión Amazonía project we are moving slowly, because honestly, it has had a lot of criticism. Just as we have friends, we also have enemies. But today I feel happy for many things and the main one is that we already have an advanced base.



The El Cheyenne farm in San José del Guaviare was largely consumed by a fire, but Diego Duque's desire to start a tourism project there was never exhausted.

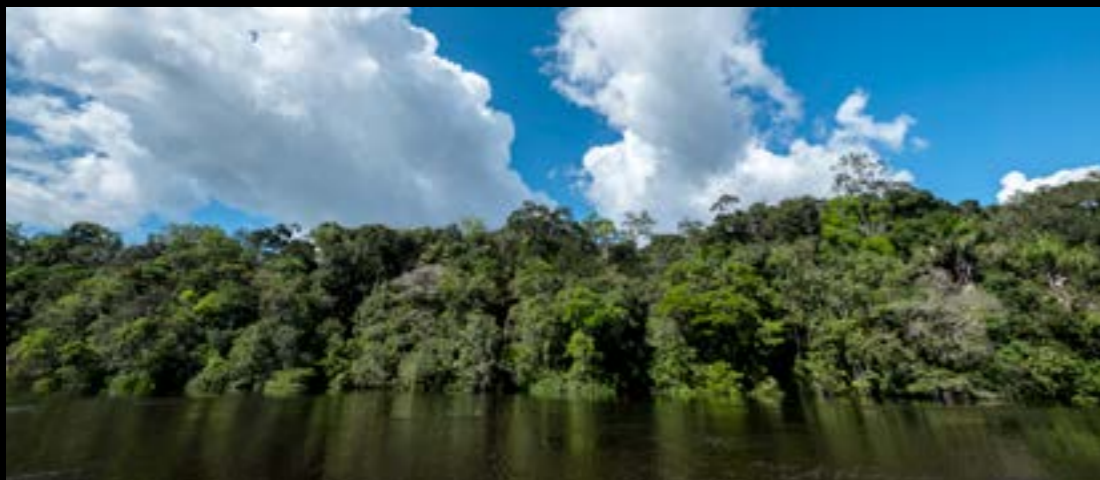
Photo: Héctor Suricata

Chapter

9

The management of
the world

VISIÓN AMAZONÍA
REM Program





Team of the Strengthening Environmental Governance with Indigenous Peoples Pillar. In this photograph: Lucy Narváez, Ana Silvia Díaz, Eduardo Ariza Vera, Pillar Leader, Vanessa Ospina and José Benhur Teteyé.

Photo: Héctor Suricata

In October 1984, anthropologist María Clara van der Hammen went to the maloka of Chápune, an old wise man of the Yukuna people, settled in Puerto Córdoba, Caquetá. I wanted to study and understand how traditional indigenous models survived under the steamroller of western culture and the market economy in the middle of the 20th century. Chápune, fearful of the slow fading of his culture, witness to a changing jungle, welcomed the young anthropologist.

The friendship and trust that developed between the 60-year-old shaman and the doctoral student opened a door to a whole universe of indigenous knowledge. Conversations lasted for almost three years, and together with María Clara's meticulous observations in that maloka, which went so far as to meticulously keep an accounting of fishing, hunting and planting, served as the basis for the book "The Management of the World-Nature and Society among the Yukuna of the Colombian Amazon"¹.

"The Yukuna have undergone a series of major transformations since contact with whites several centuries ago, until the arrival of rubber tappers at the end of the last century, and missionaries at the beginning of this century. The Yukuna cannot be treated as a "cold" society, without history; the Yukuna oral tradition shows that they not only suffered history, but also made it, and what is more: They continue to make it, showing the existence of a social awareness of historical processes", wrote María Clara. The view of the world of a shaman like Chápune can help to understand how these same peoples are facing a new scenario in their history: A rampant deforestation that is advancing over and towards their reserves, surrounding them, biting them, destroying the forest that no one better than them has known how to protect.

Chápune had a prodigious memory. His memory could travel through 300 years of his people's history, with names, marriages and separations, alliances and betrayals, wars, and peace agreements. He could recite all the rivers, lakes, streams, and ravines along



The Inga community of Caquetá developed a seed recovery project, Photo: Héctor Suricata

the entire course of the Mirití-Paraná River on both banks. If you started from the upper part of the river, on the left bank, first went the Kuluíta Lake, Kametora Creek, Irá Creek, Kasalá Creek, Yaritura Creek, Meturana Creek, Tahuiká Creek, Panamá Creek, Pokhó Creek, Mugua Creek, Lukura Creek, Yawa Creek, Mawiropa Creek, Kekhipari Creek, Poori Creek, Pake Creek... The recital ended 108 names later, in the lower Mirití, with the Yurukupiya, Yayuka Lake, Jiriyuya, Paripaya and Pokaya streams on the right bank. Chápune's shamanistic knowledge included fish names, plant names, remedies, and the entire mythology of his people.

Chápune's testimony allowed María Clara to look at this model of thought moulded by centuries to understand, coexist, and survive in the tropical jungle. María Clara explains, in one of the sections of her study, that in the basic model that governs the order between society and nature of a people like the Yukuna, a central task stands out: good living or living good. In this sense, a shaman oversees ensuring the maintenance of a certain dynamic balance among all beings in the world. "There the constant affirmation of Chápune is understood: "One does not sow like that, one does not fish like that, one does not hunt like that, one does not eat like that; one must ask permission, one must cure before". The

shaman, in the anthropologists' view, on an everyday and pragmatic level, is an ecologist.

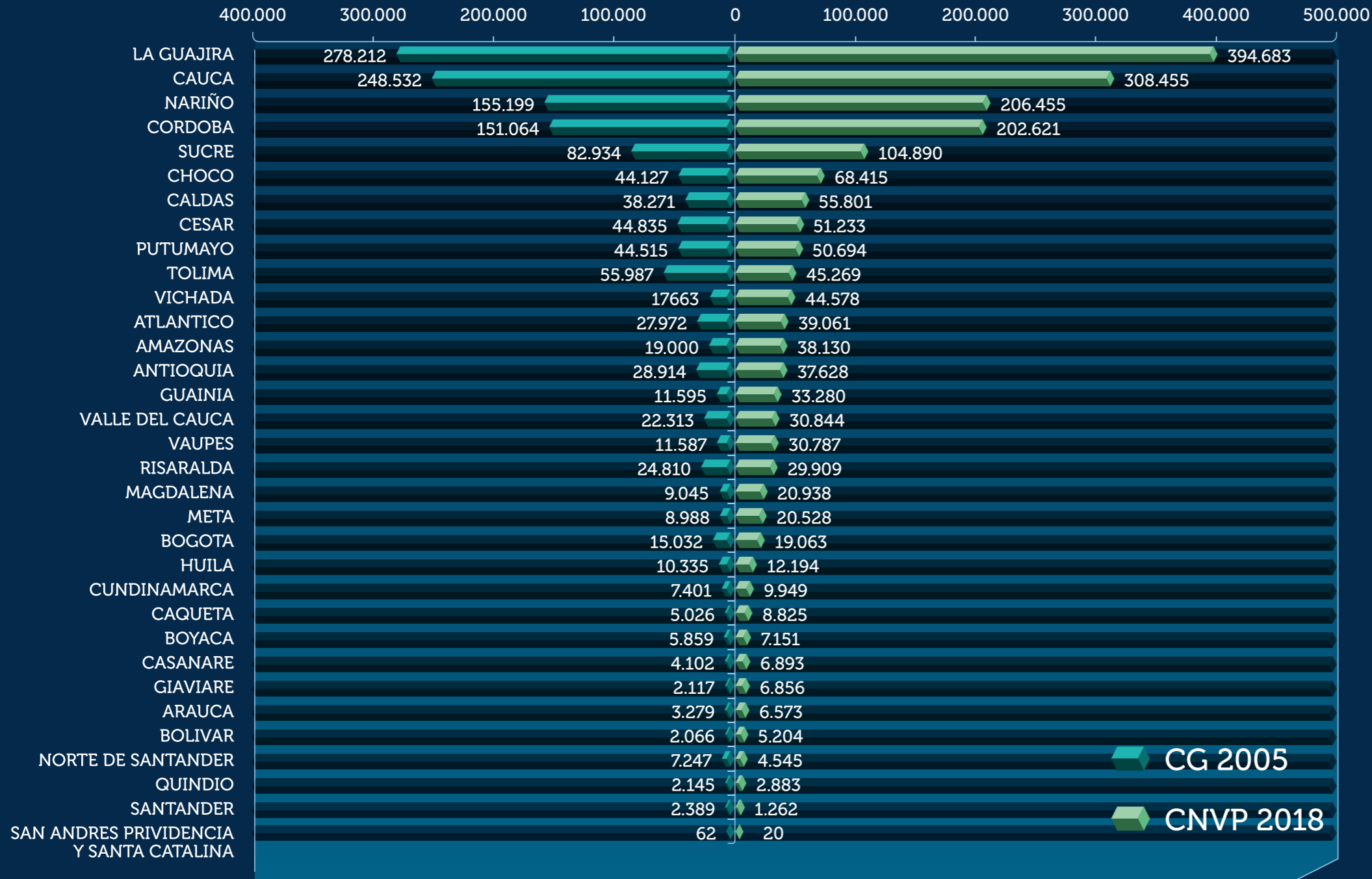
"Nature and society are in permanent conflict, but they are interdependent", wrote María Clara. Nature is a continuous threat to society, but society is also a threat to nature. "For such a reason, dynamic balances must be maintained... to avoid over-accumulation, the shaman in his role as ecologist keeps an "accounting" of all that has been extracted - including the place from which it comes, the quantity, the time of the annual cycle and the person himself who executes the extraction- and imposes food restrictions, in order to maintain order in relations with the natural world; he must therefore exercise control over the practices of society in the spheres of agricultural production, fishing, hunting and gathering".

This thinking, which aspires to wholeness between the relations between society and nature, can be traced in the configuration of the Indigenous Pillar of Visión Amazonía. During the negotiation of the program, one of the most critical points was precisely the indigenous issue. In 2012, along with the approaches between the four countries, a consultation was presented to the Amazon Regional Roundtable (MRA in Spanish), a space agreed between the Organization of Indigenous Peoples of the Colombian Amazon (OPIAC in Spanish) and the national government, regarding the most appropriate mechanism to ensure the effective participation of indigenous peoples in the construction and implementation of a REDD program.

The idea was to achieve the most effective mechanism to represent the voices of the enormous cultural diversity of the Amazon region. According to the National Population and Housing Census², by 2018 in Colombia there were 115 indigenous peoples and 1,905,617 people who recognize themselves as part of them. Of these, 62 live in the Amazon and speak about 42 different languages. More than 26.3 million hectares, 54% of the Colombian Amazon, are covered by 236 indigenous reserves³.



Indigenous population by departments CG 2005 – CNPV [National Population Census] 2018



Percentage variation (%)	
LA GUAJIRA	41,9
CAUCA	24,1
NARIÑO	33,0
CORDOBA	34,1
SUCRE	26,5
CHOCO	55,0
CALDAS	45,8
CESAR	14,3
PUTUMAYO	13,9
TOLIMA	- 19,1
VICHADA	152,4
ATLANTICO	39,6
AMAZONAS	100,7
ANTIOQUIA	30,1
GUAINIA	187,0
VALLE DEL CAUCA	38,2
VAUPES	165,7
RISARALDA	20,6
MAGDALENA	131,5
META	128,4
BOGOTA	26,8
HUILA	18,0
CUNDINAMARCA	34,4
CAQUETA	75,6
BOYACA	22,1
CASANARE	68,0
GIAVIARE	223,9
ARAUCA	100,5
BOLIVAR	151,9
NORTE DE SANTANDER	- 37,3
QUINDIO	34,4
SANTANDER	- 47,2
SAN ANDRES	- 67,7

Source DANE-DCD. CNVP 2018



JULIO CÉSAR LÓPEZ

General Coordinator of the Organization of the Indigenous Peoples of the Colombian Amazon - OPIAC

As the Organization of Indigenous Peoples of the Amazon - OPIAC we have been conducting a permanent dialogue with the Ministry of Environment and Sustainable Development since 2012 for this specific issue of the Visión Amazonía REM program.

Since then, we have been working in coordination with the technical teams of the Ministry of Environment and OPIAC. The national government talked to the indigenous peoples about the resources from the governments of Germany, the United Kingdom and Norway that it was going to bring for REED+ issues and to fight climate change. These conversations took place as an OPIAC team and later in the Amazon Regional Roundtable.

As indigenous peoples, we had said that this program should move forward through prior consultation because it affected directly, in principle in a positive way, but we wanted to define whether we would have a negative impact in the future for indigenous peoples. However, after several dialogues we reached a commitment, an agreement, that we were going to advance in a process of consultation and permanent construction of what the Visión Amazonía program was going to do, with the possibility that there would be specific resources that could be executed directly with the indigenous structures of the Amazon region.

That process took us 6 years, where we were several actors involved, including some senior level in the ministry. Once the Visión Amazonía program and the Environmental Governance pillar were structured with the indigenous peoples, we began to work with the general coordinator of the REM Visión Amazonía program, José Yunis; with the leader of Pillar 4, Eduardo Ariza, with his technical team and with other officials, always in permanent dialogue involving the technical delegates of OPIAC, MIACC and MRA.

This 6-year process led us to the construction of Pillar 4 or Indigenous Pillar and also led us to allocate a percentage of these resources exclusively for the indigenous peoples of the Amazon region. Thus, a document was achieved that is the navigation chart where, in a concerted manner, we were able to establish clear rules to be able to execute these resources and that they can be invested in the needs, works, knowledge systems, processes with the elders, grandparents, youth, territorial processes, purchase of inputs or some goods for the Amazon region. The final objective is to be able to contribute to the climate change within the framework of the Visión Amazonía program and to avoid degradation and deforestation.

It is important to emphasize that as we executed the resources, we made technical and administrative adjustments because it was a learning experience for both the REM Visión

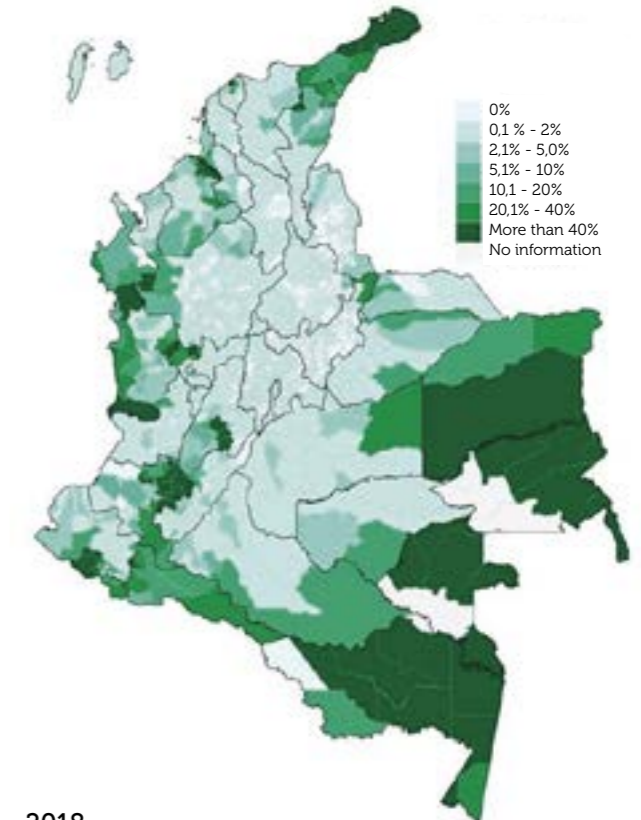
Amazonía program and for Patrimonio Natural, the financial mechanism, because as we have always said, the Amazon region, due to its geographical complexity, the costs involved, the lack of public institutions, private enterprise and banks, among other things, make it mandatory that the issue of resource management in the region be treated in a differential manner.

Finally, it was a joint and permanent work of direct dialogue, of much learning for both parties and at the end, what remains is the satisfaction that we were able to demonstrate to society in general that the indigenous structures are ready to manage state resources. This has been a first sample that we are very efficient and responsible with the administration and execution of resources, not because we say so, but because the evaluations that have been made of the audits and also of the Visión Amazonía program and Patrimonio Natural have allowed us to reach this conclusion.

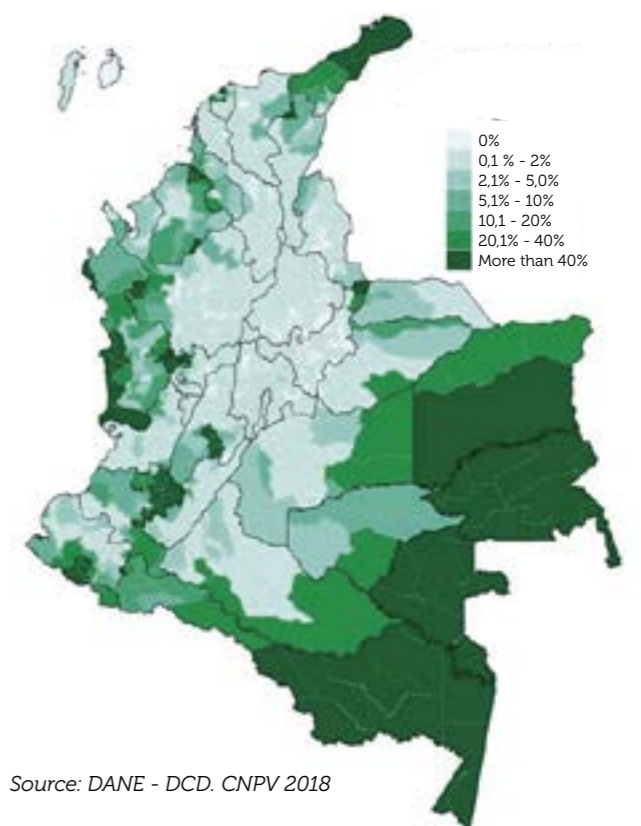
It is more than 10 years of work, 6 years of dialogue and agreement, 4 years of execution and all this learning has been a very nice pathway to meet and share with the national government and the indigenous structures that have led to strengthen these spaces for dialogue, in the company of grandparents, youth and women seeking the welfare of the indigenous peoples of the Amazon region.

Percentage of Census on Indigenous Population in the Total Municipal Population

2005



2018



Source: DANE - DCD. CNPV 2018



Within the framework of the "Guardians of the Amazon" call exclusively for indigenous women, a meeting was held where delegates from the 69 projects were able to exchange experiences regarding the formulation and execution of their projects.

Photo: Wilmar Mogollón



ANA BEATRIZ BARONA

National Coordinator of the Pequeñas Donaciones Programme - GEF/UNDP

CARETAKERS OF THE AMAZON (CUIDADORAS DE LA AMAZONÍA) - THE EXPERIENCE AND VOICE OF INDIGENOUS WOMEN

Caretakers of the Amazon represents a milestone in the region for the simultaneous development of 69 projects that reflect the vision and proposals for action of indigenous women to strengthen their role, participation and contribution to the conservation of their territories and the Amazonia forests.

Caretakers of the Amazon is the result of a partnership with the Global Environment Facility (GEF) Small Grants Programme (SGP) implemented by UNDP. The SGP, whose purpose is to strengthen community participation in environmental management through technical and financial support to projects of social organizations, contributes its expertise and operation scheme based on the direct allocation of resources to community social organizations, with an accompaniment aimed at capacity building. Visión Amazonía provides the action framework defined with the indigenous peoples for the implementation of the Indigenous Pillar and the financing resources. And the indigenous women leaders and delegates, who, through the coordination of Women and Family of OPIAC [Organization of Indigenous Peoples of the Colombian Amazon], managed to position the importance of allocating specific resources, guaranteeing funds for the financing of women's projects. Thus, Caretakers of the Amazon is also an alliance that takes advantage of and complements expertise, skills and institutional and social will, towards the common purpose of strengthening the capacity, visibility and

recognition of indigenous women.

After an extensive dissemination process, in which 204 proposals were obtained and evaluated, 69 projects were prioritized to receive technical support and also up to 80 million Colombian pesos for the implementation of their initiatives, for a total of COP \$ 5,394 million. The implementation of the projects between January 2021 and August 2022, was carried out under the leadership of indigenous women, through organized women's groups, committees, associations, women's secretariats and indigenous organizations.

The women's proposals focused on strengthening ancestral knowledge, conservation of traditional food systems, community entrepreneurship and strengthening their capacities as leaders.

The implementation of the projects strengthened and diversified the strategies and actions of the women in cultural management and knowledge transfer; valuable processes of documentation of knowledge and practices around the chagra (small area of cultivated land. T.N.), food, medicine, self-care and handicrafts were developed.

The women worked on the recovery of forest species valuable to be used in their rituals, food and material culture, as well as for the development of productive enterprises, many of them based on their traditional knowledge and practices that generate income for them

and their families. They also promoted the restoration of degraded or threatened areas, protection of conservation areas and areas of water importance. The establishment and strengthening of chagras was promoted, with the recovery and diversification of varieties and seeds, in addition to their contribution to food sovereignty.

In terms of strengthening women's capacities, participation and leadership, empowerment processes were promoted at the individual and collective levels. Women generated capacities and confidence to express ideas, organize themselves and participate in the management of their territories. Women's secretariats and committees were positioned within the indigenous reservations (resguardos), councils (cabildos) and AATIS [Associations Of Traditional Indigenous Authorities Of The Amazon] as well as greater recognition in their communities.

The women also showed great interest in learning about administrative, technological and reporting issues, overcoming the complexities of project administration and report preparation. While this remains a challenge, they were able to develop leadership and administrative skills to write reports, legalize purchases, build work teams, meet deadlines and provide clear accountability. A total of 462 women were trained in women's rights, leadership, self-government, administration, marketing and accounting.

For the GEF, this was an opportunity to continue strengthening the ways of working and supporting community organizations, especially women, with the conviction that it is through local action and taking advantage of knowledge and skills that effective nature conservation processes and solutions can be facilitated, with empowerment and social wellbeing. The participation and joint work with Tropenbos International, which supported the local implementation and monitoring of the projects and with whom methodologies appropriate to the Amazonian context were developed, also leaves important lessons on the type of support required to ensure proper local implementation.

This first call of Caretakers of Amazon developed actions with tangible results in each of the communities, more than 50 hectares of conservation, almost 100 hectares in restoration processes, the establishment, strengthening and diversification of more than 250 hectares of traditional chagras as a cultural and productive base. Above all, it facilitated personal transformations and the recognition that the strength of indigenous women lies in their culture and tradition while leaving new capacities and a greater interest in taking on organizational and territorial management processes. From the GEF we are convinced that this is a fertile seed to continue strengthening the participation and leadership of women in biocultural conservation and sustainable development of the Amazon, making it more attainable.



The members of the MRA proposed to develop a participatory construction process through 13 meetings in the six Amazonian departments, considering the existing planning instruments available, such as indigenous life plans, indigenous land management plans and safeguard plans.



At that time there were many misunderstandings about carbon markets in relation to indigenous communities. In Colombia, some unscrupulous characters went from community to community asking some indigenous people to sign commitments; in the same style as the old rubber tappers, but this time promising a bonanza of bonuses related to the "oxygen" in their forests. On the other hand, concerns about safeguards and human rights were always at the forefront. Both the donors and the Colombian negotiators were seeking a negotiation that would be endorsed by the indigenous communities⁴ and that they would be included in the distribution of the benefits of the possible program.

Christiane Ehringhaus, KFW consultant, recalls that this was one of the most important points of attention during the negotiations. "We didn't want it to be a top-down project, but a very clear participatory process with the indigenous people". This led to the condition of having at least 20% of the resources allocated to programs focused on indigenous communities. After all, most indigenous communities have been an example of forest management and have kept deforestation at bay in many of their territories. Several academic papers have demonstrated this. One of the most recent, published in the Plos One journal in July 2021, by an international team of researchers collaborating with the Amazon Geo-referenced Socio-environmental Information Network (RAISG)⁵, concluded that "indigenous land use in neotropical forests may have a temporally and spatially stable impact on carbon stocks"⁵. This does not mean that they are safe from deforestation. Reports from the Forest Monitoring System show that some of them have been severely affected.

Report by Indigenous Reservations

For 2020, deforestation in areas of indigenous reservations was 20,325 ha (12% of the national total), higher than in 2019, when it represented 11%.

Indigenous reservation	Deforestation 2019 (ha)	Deforestation 2020 (ha)	Deforestation 2019 - 2020
Mataven forest	1.660	947	- 713
Vaupés	1.776	1.441	- 335
Atapabo and Inirida rivers	516	219	- 297
Nukak - Makú	1.873	2.560	687
Llanos de Yari - Yaguará II	1.766	2.549	783
Putumayo property	784	2.551	1.767

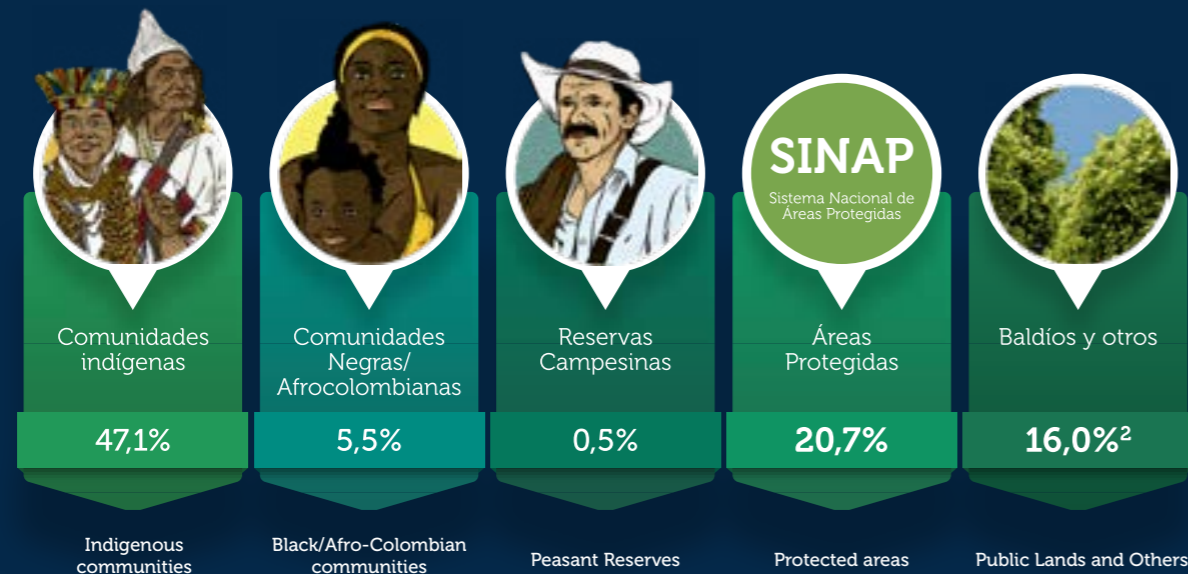
Within the jurisdiction of five indigenous reserves, 48% of the deforestation under this type of management was concentrated.



Source: Own elaboration

Ownership/Holding of Natural Forests in Colombia

Source: Own elaboration



⁴ Indicators of Indigenous Human Well-Being

⁵ https://sinchi.org.co/files/publicaciones/novedades%20editoriales/pdf/Indicadores%20de%20Bienestar_WEB.pdf

² Alejo C, Meyer C, Walker WS, Gorelik SR, Josse C, Aragon-Osejo JL, et al. (2021) Are indigenous territories effective natural climate solutions? A neotropical analysis using matching methods and geographic discontinuity designs. PLoS ONE 16(7): e0245110.

<https://doi.org/10.1371/journal.pone.0245110>

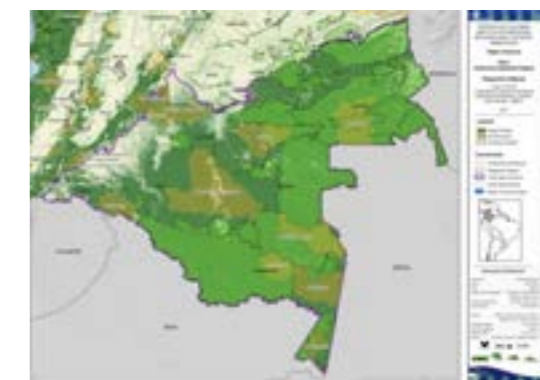
To a certain extent, the Indigenous Pillar reflects that "management of the world", to which Chápune referred, today threatened by many economic and social dynamics. The 13 agreed workshops were held between 2015 and 2016 and were technically and logistically coordinated by OPIAC and the Amazonian Indigenous Environmental and Climate Change Roundtable (Miaacc in Spanish), with the financial support of the German GIZ and the participation of technicians from the Ministry of the Environment, together with indigenous advisors. In 2017 the conclusions were embodied in the document named Visión Amazonía Indigenous Pillar or PIVA⁶.

OR PIVA document

The participatory construction exercise reiterated the Amazonian indigenous peoples' holistic vision of the territory. "The Indigenous Pillar differs from the others because there is a political agreement behind its structuring. We must not forget that the Amazonian peoples have been pioneers in the construction of environmental agendas, including international scenarios, to the point that in recent years they

have tried to create a version of the REDD+ program, but with their own focus", emphasizes the anthropologist and coordinator of the Indigenous Pillar, Eduardo Ariza Vera, who has developed his work and academic life around the Colombian and Ecuadorian Amazon, the Pacific region and the Colombian and Venezuelan Orinoquia.

For him, PIVA is a successful experience in terms of the relationship between the national government and the indigenous peoples of the Colombian Amazon. It was approved on May 5, 2017. Basically, PIVA defines the route, procedures, governance and distribution of benefits from the pillar's resources.



⁶ <https://www.patrimoniounatural.org.co/wp-content/uploads/VISIO%CC%81N-AMAZONIA%CC%81A-GUI%CC%81A-PROYECTOS-PILAR-INDIGENA-1.pdf>

Benhur Teteye, indigenous Bora, who accompanied the workshop process as a delegate of the Ombudsman's Office, and later joined the Visión Amazonía team, emphasizes that the ultimate goal of the Indigenous Pillar is none other than strengthening indigenous governance over their territories. Ariza agrees that the negotiation of PIVA reflects this desire to strengthen indigenous governance: "PIVA is a politically agreed governance system. It is a rule for a distribution of benefits that must reach the entire Amazonia with a series of safeguards".

PIVA defined nine principles on which the entire process was to operate: Unity, cultural diversity, territoriality, wholeness, self-government, transparency, action without harm, good faith and equity.

From Dialogue to Action

Bajo Under the nine principles, the initiatives that apply for Visión Amazonía funds are prioritized in a mechanism called the Monitoring and Follow-up Platform (PAS in Spanish), formed by the indigenous secretary of MIACC, an indigenous delegate per department, a representative of the Ministry of the Environment and Sustainable Development, and the leader of the Indigenous Pillar of Visión Amazonía. This mechanism is supported by Fondo Patrimonio Natural and the Ministry of the Interior as guarantors.

Visión Amazonía has launched three calls for proposals for large projects and a special call for proposals specifically oriented to women with the support in the implementation of the GEF/UNDP Small Grants Program. These funds were used to prioritize 140 projects throughout the Amazon biome. The projects are in the hands of 53 associations and organizations, representing approximately 172 indigenous reservations out of the 236 reported by IDEAM for the Amazon biome, that is, 73% of the total that inhabit an area of 19 million hectares. At least 25,480 families have been enrolled.

The process has been staggered. In a first call for projects with a budget of \$ 2 million, 10 projects were selected. For a second call, which closed in December 2018, \$ 6.3 mi-

llion was made available. In this round there was a delay due to a writ for protection of fundamental rights (tutela in Spanish) filed by the Andoque de Aduche community. Their leaders withdrew from the initial agreement and demanded a prior consultation. For many of those involved, this incident is a sign that there is still a need to fine-tune the routes of consultation with the different levels of indigenous organizations. In the end, 26 projects were selected. This process coincided with the COVID19 pandemic, which generated delays and project reformulation processes.

A third call for proposals was opened in January 2020 with a budget of \$ 6.9 million. A total of 108 projects were submitted and 34 were selected. "With these calls, we have 70% coverage in the indigenous territories of the Amazonia biome. With the third, and with "Caregivers of the Amazon", we would reach 85%", said Ariza, and stressed that unlike many other programs that intervene in the region, "these are initiatives that come from the local level. No government or NGO experts sat here and told us how to invest the funds". It was also agreed that evaluations would be carried out after each call for proposals and the PIVA document would be adjusted, if necessary.

The projects presented by the different groups cover a broad spectrum of actions in their territories, such as the demarcation and expansion of reserves, indigenous life plans, strengthening of organizations, systems of government, and even the rescue of languages and cultural traditions.

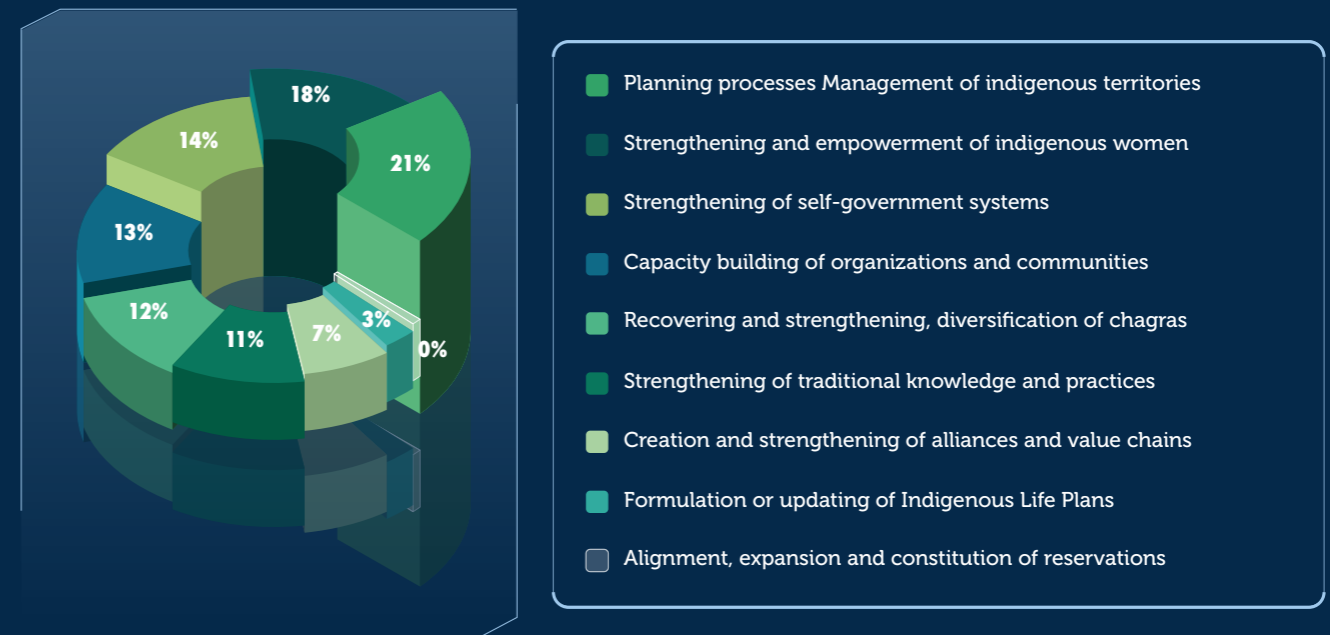


these are initiatives that come from the local level. No government or NGO experts sat here and told us how to invest the funds



Eduardo Ariza Vera

Investment by component



Source: Own elaboration

The challenge of managing projects in the Amazonia biome

"What we have done from the Indigenous Pillar, is to facilitate information, generate spaces for the organizations to work autonomously, and make execution easier. Although, when weaknesses are detected, they can make strategic alliances with other organizations", says Benhur, who sees one of the greatest challenges as achieving a more fluid interaction between indigenous organizations that do not have so many administrative strengths and an institutional framework that operates under laws, rules, and administrative customs.

Challenges begin with such basic aspects as communication. Sending information from places like Araracuara or La Chorrera is not easy. To this, the increased costs of any action in remote territories must be added. Going into the jungle to reach Araracuara, in the middle part of the Caquetá River, or the Mirití Paraná, can cost between 5 and 9 million Colombian pesos. Some river trips may involve paying 200 gallons of fuel.

Another obstacle is institutional logic. "Doing legalizations of money, can become a headache", says Benhur, "and that's where we start to sort through difficulties so that those processes don't get stuck. That has been one of the difficult things to understand between the parties".

Given the enormous financial, accounting, and administrative weaknesses of most of the indigenous organizations that aspired to contract directly with Visión Amazonía, it was decided to open a bidding process to contract an entity that would specifically support these tasks. That call was won by the Amazon Conservation Team, a non-profit organization that works in partnership with the indigenous peoples of the Amazon, created in 1996 by ethnobotanist Mark Plotkin and Costa Rican conservationist Liliana Madrigal.

Carolina Gil, director of the organization in Colombia, agrees with Benhur's diagnosis. "The procedures of Visión Amazonía are those that were defined in the framework of the grant, but they are complex and demand an effort for the indigenous organizations. Some have the capabilities, but others not so much".

Gil points out that Colombia requires complex tax regulations, with “a detailed filigree that is very challenging for an indigenous implementing entity to execute this type of resource”. Although the exercise of autonomy that Visión Amazonía has fostered by working directly with indigenous organizations has allowed resource execution processes to mature, it has also shown the need for state institutions to learn to understand the conditions in which these organizations operate. “We are talking about areas where there is no internet, there is no banking system, there is no access to accounting professionals and there are dynamics that are very different”.

“You almost always offload the challenge of execution onto the implementing entities, and I think, on the other side, equally there should be a more holistic understanding. When I talk about the other side, I am not only referring to the Ministry or Patrimonio Natural, but also to the funder. We need to understand other logics, since the world of a German bank is very different from the reality of a community living in La Chorrera or La Pedrera del Amazonas”, says Gil

Regarding this same problem, Alberto Galán, executive director of Fondo Patrimonio Natural, recalls that many of these requirements were agreed upon in the [Operating Manual](#) of the agreement, and many of them correspond to tax and administrative requirements of the Colombian government.

Beyond the obstacles, Benhur considers that “the PIVA experience is a third way that has its costs like any other model, but the benefits have been greater. Visión Amazonía will not solve all the problems of the indigenous peoples, but it is a tool to transform the territory”.

In January 2022, indigenous leaders from throughout the Amazonia, in the context of the Amazon Regional Roundtable and in reference to Visión Amazonía, met in Bogota to evaluate the program’s progress for the third time. It was a long day in which administrative difficulties and challenges surfaced, but also confidence and optimism about the program.

Nelson Rodríguez Carrasquilla, who knows Vaupés, noted that his experience with Visión

Amazonía has been “good, because it is one of the projects that the national government has promoted so that these resources reach the communities directly. Those of us in the know understand that there are State regulations and that international resources have their own laws to apply them”.

For his part, Oswaldo Muca Castizo, operating secretary of the Amazon Regional Board, said that “the issue with Visión Amazonía has been carried out in a coordinated manner, it has had good effects, we have reached very good agreements and we want to continue working. There are difficulties, things to improve, but we are trying to continue strengthening this program. The program serves to strengthen the indigenous territories in the Amazonia”.

Mateo Estrada, OPIAC’s Climate Change environmental advisor, acknowledged that Visión Amazonía and especially PIVA, have been “a great step forward, because they have strengthened the indigenous governments administratively and organizationally. We have been able to strengthen food security and seeds, but it has also allowed for greater territorial control and greater social control based on projects”.

Call for small projects for indigenous women

It was agreed that the Small Grants Programme, the United Nations Development Programme (UNDP) to administer the call for small donations for women and family. The Program’s contribution is USD 1,965,500, with a UNDP counterpart of USD 450,000, for a total of USD 2,415,500 and a direct investment of USD 1,590,000. The Financing Agreement was signed on March 28, 2020, between UNDP and Patrimonio Natural. The call for proposals opened on May 15 and closed on July 15, with the receipt of almost 200 projects that will be evaluated in the Monitoring and Follow-up Platform (PAS in Spanish) in August 2020. Of these, 70 initiatives were chosen, all of which are being implemented and are having a great impact on the territory.



Ana Victoria Matapi is part of the Andoque project implemented in the town of Araracuara, in the Colombian Amazon.

Photo: Eduardo Ariza





The Murui Muina indigenous women have found in handicrafts an option to generate income for their families. The CANASTO DE LA ABUNDANCIA (Basket of Abundance) organization has a space to exhibit the handicrafts.

Photo: Héctor Suricata



ANGIE MEDINA

indigenous Curripaco from the municipality of Inírida.

Angie is a young indigenous woman of the Curripaco ethnic group, raised in the municipality of Inírida, Guainía, who had never been in a conuco (small plot of land used for the cultivation of small fruits. T.N.), did not know how to farm, nor how to use the implements for the production of traditional foods such as cassava because her family took her to live in the city at a very young age. Today, she is part of the Association of Women of Guainía - AMUGUA, an organization that seeks to keep alive the customs and traditions of their indigenous people.

AMUGUA applied to the call for Mujeres Cuidadoras de la Amazonía [Women Caregivers of the Amazon] and received funding for the project "strengthening productive activities in the conucos through planting and ancestral practices".

This is the first project executed by the Association, involving girls and young women to listen to the mothers and grandmothers of their community and vice versa, about the conucos (spaces for planting food).

Through different activities, dialogues and knowledge meetings, they were able to transmit ancestral knowledge about crops, the care of seeds, the appropriate seasons for planting, the climate and all the details to ensure that food is never lacking.

The Association is made up of 17 empowered women who work in social, cultural, political, economic development, sustainable and environmental activities that improve the living conditions of women and their families.

This project was focused on strengthening and has been based on four objectives:

- Enhance productive activities in an ancestral and traditional way.
- Strengthen ethnic leadership and empowerment.
- Recognize the rights of indigenous women.
- To make broaden knowledge and transmit it from generation to generation.

"I only have words of thanks to Visión Amazonía, the Ministry of Environment and international cooperation because they decided to support and trust in the Association of Women of Guainía – AMUGUA; thank you for believing in women and allowing us to have a project exclusively for us, understanding that we are capable of managing resources, of implementing different initiatives, but above all that we can transform lives, preserve our territory, preserve our culture and transmit all our knowledge. In short, thank you very much!"

Cuidadoras de la Amazonía is a call exclusively for women that was supported by the Small Grants program of the GEF-UNDP; it was present in six departments of the Colombian Amazon and allowed women to take the lead in projects of their authorship, as an opportunity to strengthen their knowledge, promote their community processes, benefit their families and their community, while empowering themselves and valuing the important role they have had for a long time.



FANY KUIRU

Coordinator of Women, Children and Family of OPIAC

IF THEY GIVE US WINGS AND WE FLY THE AMAZON IS PROTECTED

If we give women wings, they fly. If they fly, the Amazon is protected" these were some of my words during the National Meeting of Women Guardians of the Amazon. These words are a reflection of the experience of years of working with women and seeing up close how the miraculous hands of women transform scarcity into abundance, they work to share, they work with their family and community in mind, everything pays off, from one seed they can reproduce hundreds of trees of abundance.

The "Guardians of the Amazon" project supported by UNDP, OPIAC and Visión Amazonía of the Ministry of Environment and Sustainable Development has been the first and so far the only experience, where women were the leading role in the construction and execution of actions, that is to say "they were creators and promoters of their own development", in this way their genuine role as reproducers of knowledge and life in the Amazon has been strengthened.

The "Guardians of the Amazon" project was a respite and a relief for indigenous women in the midst of the defenselessness that they live daily in their territories, in the face of so many dangers and risks due to different factors associated with extractivism, the presence of legal and illegal armed groups, deforestation, the seizing of their ancestral lands and other activities that endanger the existence of indigenous peoples.

Unfortunately, indigenous women suffer the most serious violence: femicides, rapes, among other abuses. Let us remember the terrible case of our young indigenous companion from the Inga people, Deisy Marileidy Naucil Jacanamejoy murdered just a few days ago in the Sibundoy Valley. Her femicide leaves three orphaned children and an entire community outraged and sad. This case, like others, is unfortunate, but keep in mind that we will demand justice from our own governments and from the penal system in Colombia, these crimes must be punished with the full rigor of the Law.

That is why it is so important to strengthen the economies of indigenous women, in this way we guarantee that women are united, strong and are trained in rights that allows them to know the means of denouncing and are not afraid to do so.

Today human and fundamental rights are violated, this forces us to move against our will, they end our livelihoods and subsistence, we suffer from rare diseases that affect our health, in the case of us women, our reproductive health, we suffer from cancer due to the poisoning of our rivers that provide food. In addition, we suffer the effects of climate change, daily we experience the loss of our great mother earth, our wild and cultivated biodiversity inherited from our ancestors for a good life, is also being killed.

In the meeting of experiences, the women requested: "the allocation of 50% of the Resources of the GREEN FUND FOR THE CLIMATE Program that will go to VISIÓN AMAZONÍA, to continue strengthening processes of the Guardians of the Amazon, where we

demonstrate our technical and administrative capacities with productive projects, crafts, traditional medicine"; let us hope that these words of our wise women from the Amazon land in concrete works, to continue weaving the basket of abundance and knowledge for the care of the Amazon.

In conclusion, the Guardians of the Amazon project should be the starting point for the recognition of the fundamental role of women as restorers, reforesters and pollinators of the great lungs of the world. In this way, not only the forest is protected, but also the lives of women, the recognition of their role within our own structures is supported, and advocacy processes for international recognition are strengthened.

This seed deposited in the hands of the wise Amazonians became abundance and good living for the Amazon, our law of origin establishes that "we were born to live in abundance and not in scarcity".



Certification of indigenous monitors and closing assembly of the project to strengthen the Co-reguaje and Macaguaje peoples of the municipalities of Milán, Solano and Puerto Leguizamo executed by the ASIMC association.

Photo: Visión Amazonía



Chapter

10

The fruits of the forest

VISIÓN AMAZONÍA
REM Program



Agri-environmental Development Pillar Team. In this photograph from left to right: Edgar Otavo, Kelly Alejandra Pérez, Yezid Beltrán Barreiro Pillar Leader, Dora Sánchez, Edwin Hurtado, Yuly Poveda and Pablo Pineda.

Photo: Héctor Suricata



In most municipalities of the Colombian Amazon the axe is part of the monuments, because colonization was directed by the State, ignoring the value of keeping the forest standing, San Vicente del Caguán.

Photo: Pablo Correa

The central square of San Vicente del Caguán, one of the most deforested municipalities in Colombia, is adorned by a statue in the shape of a trunk and in the middle, in the whole pith of the felled tree, a chopped axe. A symbol that speaks to the memory of so many settlers who arrived in search of a better fortune. In this place, which for decades was a war bastion, the signing of peace brought optimism, tranquillity, but also unleashed a perverse effect: the jungle began to fall faster. Now the statue has taken on an apocalyptic meaning.

However, at the entrance of the municipality, on a small hill, stands a yellow building that houses the Committee of Cocoa Growers in

Agroforestry Systems, Comicacao. The farmers who want to retire their axes and bet on a different economy for this Amazonian territory arrive there. For now, they are certain that every kilo of cocoa “cob” they harvest from their trees will be bought by the committee, which, in turn, has guaranteed sales to larger distributors.

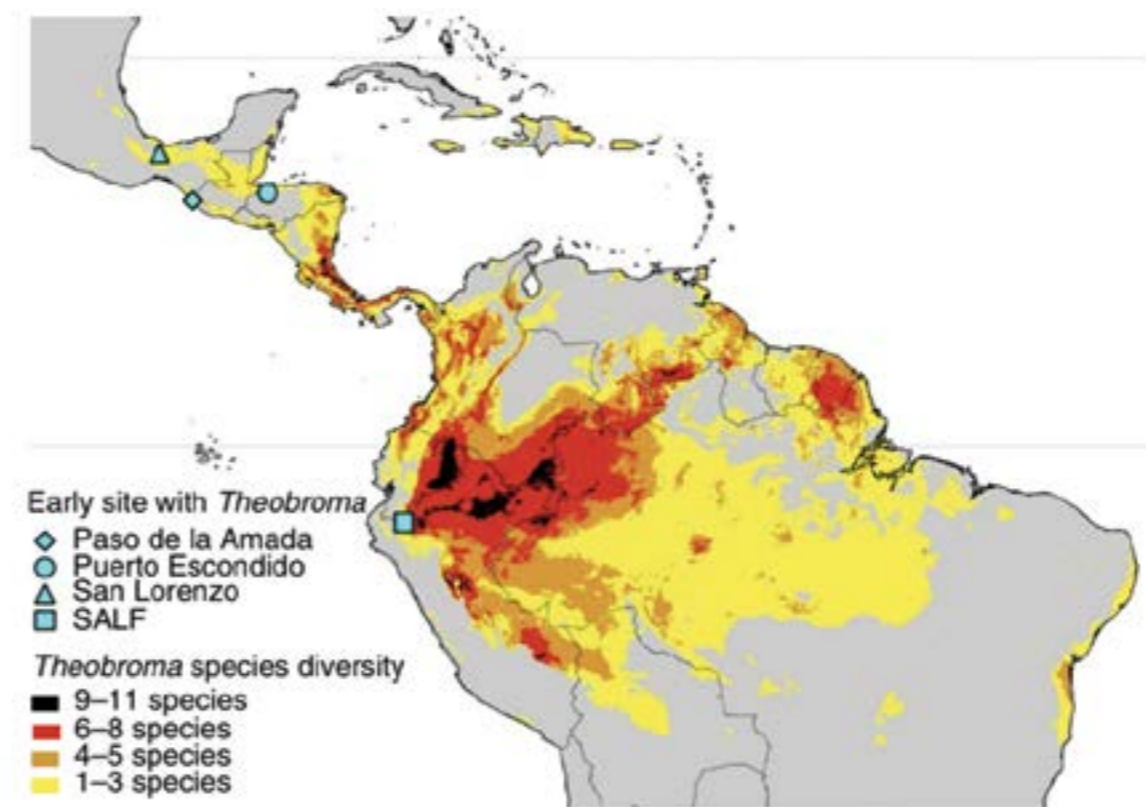
In the municipality of Solano, three hours by speedboat from Florencia, near where the wide, twisting and lazy Orteguzza River merges with the waters of the Caquetá River, which at that point has already calmed down after its vertiginous descent through the Andes, another group of farmers has also begun to reserve some plots on their cattle farms to

cultivate “the drink of the gods”. On one of the main streets of the riverside town, an old mansion has been transformed into a modern headquarters for the cocoa farmers’ cooperative. It has a warehouse, a meeting room and a collection centre. In the front yard, a cocoa plant with its first fruits reveals its mission.

Cocoa is native to this region of the Amazon. It is precisely in this area, shared today by Colombia and Ecuador, where the greatest genetic diversity of *Theobroma cacao* exists. Although historically it has been believed that it was the Mayans and Aztecs who domesticated the plant some 4,000 years ago, since it was through them that the Spanish first encountered it, recent scientific evidence tells a very different story. In 2018, an international group of researchers demonstrated that the communities that inhabited the north western

region of the Amazon, more than 5,000 years ago, had already delighted in the juices of this seed. At an archaeological site belonging to the Mayo-Chinchipec culture, today Ecuador, made up of some 20 buildings located around a central plaza, scientists took samples of residues from ceramic bowls, jars and bottles, stone bowls, mortars and a pestle (*maja*), and after chemical and genetic tests, they demonstrated that these communities consumed chocolate, long before the cultures of Central or North America.

The agricultural potential of cocoa in these areas is enormous. After all, it is the crop’s natural habitat, its origin. Cocoa plants respond well to relatively high temperatures (with a maximum annual average of 30 to 32°C, a minimum average of 18 to 21°C) and generally high relative humidity.





NELSON ENRIQUE LOZANO

Specialized Professional Ministry of Agriculture and Rural Development

The Amazon is an ecosystem of vital importance for the regulation of the world's climate; therefore, its conservation has always been a priority for the Ministry of Agriculture.

In this sense, the Ministry of Agriculture has tried not to promote agricultural activities in the Amazon region. Its priority has been the Andean, Caribbean and, to some extent, the Orinoco regions, where there is significant potential for the development of agricultural activities.

When, with the Sinchi Institute, the Ministries of Environment and Sustainable Development and of Agriculture and Rural Development began to design the Agri-environmental Development Pillar of the Vision Amazonia REM Program, the idea was to focus on productive reconversion; that is, it was considered to work with families that were already settled in the Amazon, and that with them it would be possible to develop agricultural and livestock activities without affecting the strategic ecosystems.

The Sinchi Institute, thanks to its recognition in the region, enabled the Ministry of Agriculture to reach Amazonian communities with much more environmentally friendly activities, especially in Caquetá and Guaviare, where it has been demonstrated that sustainable agriculture and cattle raising can be carried

out without affecting the Amazonian forests.

Thus, as part of the Board of Directors of the Agri-environmental Development Pillar, the Ministry of Agriculture has always participated in decision-making, and we have also accompanied the planning of activities and the development of interventions.

Today, Visión Amazonía is an ally in the co-financing of 12 projects of the Productive Alliances program of the Ministry of Agriculture and Rural Development in the departments of Caquetá, Vaupés and Guanía, a program offered for the entire country.

The Ministry supported productive projects in rubber, cacao and livestock conversion, as well as non-timber forest products such as asaí, sachá inchi and canangucha, among others. The agri-environmental rural extension service was implemented, green financial instruments were designed in collaboration with other important allies, such as Finagro and Banco Agrario, and we learned about Conservation-Production Agreements.

The alliance we have developed with the Agri-environmental Development pillar of the Vision Amazonia REM program and the Sinchi Institute has given us excellent results insofar as we have been able to link productive activities with conservation actions.

Both associations were chosen, the one in San Vicente del Caguán and the one in Solano, to receive funding and technical support in the call launched in 2017 by Visión Amazonía, through the Municipal Rural Development Councils of the most deforested municipalities in the country. From this public call, 21 proposals were chosen to be promoted under the Agro-environmental Development Pillar, the number was later reduced to 16, seven located in Guaviare and nine in Caquetá. In the end, through the Agro-environmental pillar, Visión Amazonía supports 42 local organizations through the financing of productive projects, value chains and productive alliances.



Visión Amazonía has been the ground for many new things and new purposes to emerge. It has also given us visibility at the departmental and regional level



José Andrés Morales Barreto , Coimicacao

Yezid Beltrán, from Caqueta, an agronomist with a master's degree in biological sciences, has dedicated his professional life to consolidating value chains related to agricultural products in the Amazon. He is now a frequent visitor to the 42 working groups. He tries to keep informed of the obstacles they face. This is part of his work as leader of the Agro-environmental Development Pillar.

"The Agro-environmental Development Pillar proposes productive projects and forest conservation agreements with farmers to stop deforesting", explains Beltrán and recalls that when he joined the Visión Amazonía team, "the investment portfolio was practically already written and, although a beautiful music score was written, at the time of executing it we did not know which note to start with or which instrument to use. This meant that we had to overcome many obstacles along the way".

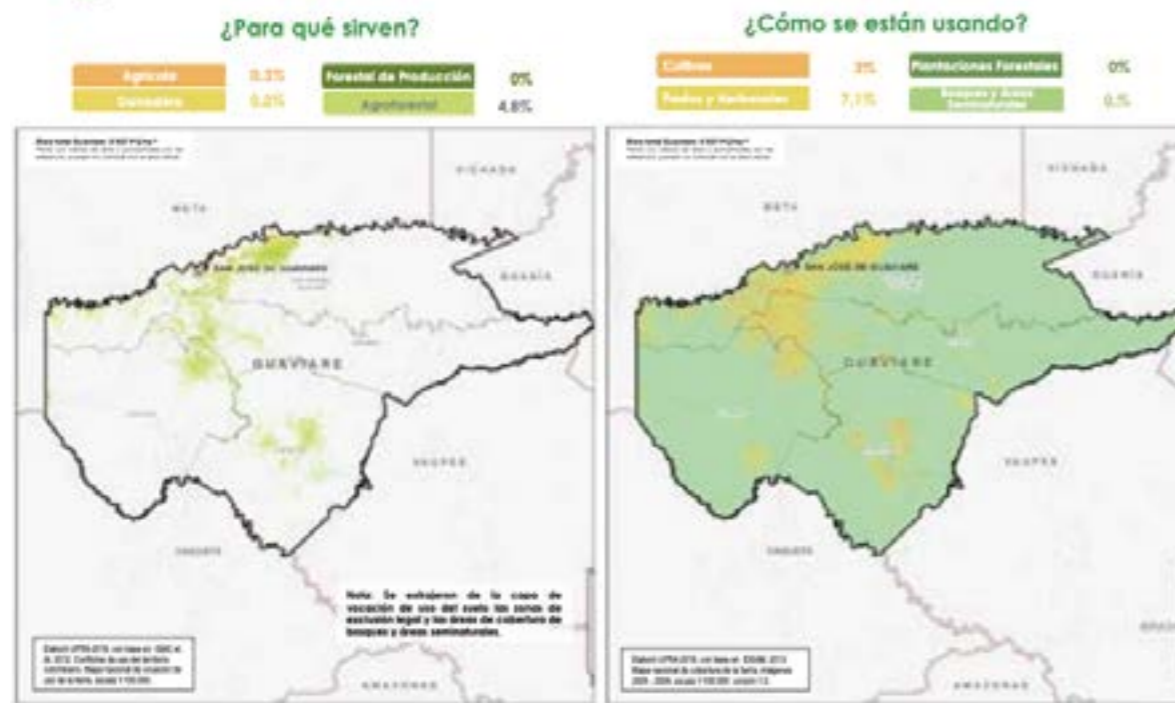
José Yunis adds that "the heart of this pillar consists of understanding what the region produces in order to develop and strengthen the entire value chain of these products, from planting to the marketing of processed by-products". This is the pillar that receives the most resources of all Visión Amazonía. The pillar focuses on five production chains: sustainable cattle raising and dairy, cocoa, rubber, timber and non-timber products. A sixth chain, nature tourism, is being developed on a smaller scale. Coffee was excluded because it is grown above 500 meters above sea level, so it was technically outside the Amazon itself.

In the conversations and discussions prior to the signing of the agreement that gave life to Visión Amazonía, one of the organizations that actively participated was the Amazon Research Institute, Sinchi. Beltrán emphasizes that the interventions that have been proposed in the pillar are inspired by the work that researchers of this institute have been building for several decades, thinking about sustainable development for the Amazon. In fact, 11 of the initiatives are implemented in conjunction with Sinchi, which in addition to technical support to local associations provides them with administrative support.

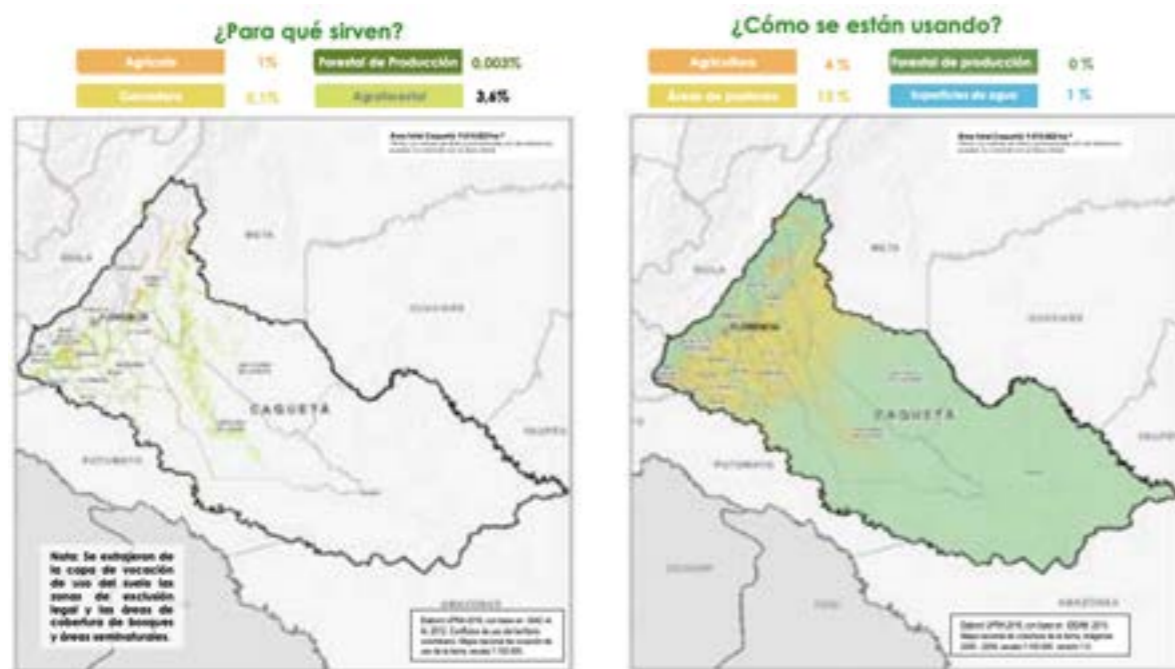
"The Sinchi Institute is the program's most important ally in terms of knowledge and research on productive systems for the region", says Beltrán, "the focus of the builders of this portfolio was agro-environmental, not the traditional agricultural focus, so the actions are aimed at putting less pressure on the forest".

The Sinchi Institute defines the agro-environmental approach as "the sustainable use of the territory through agricultural production and conservation systems that improve competitiveness, human well-being and the sustainable management of the land and its natural resources". It is a broad idea that encompasses aspects of food security and rural poverty reduction, mitigation and adaptation to climate change. Barrera says that Visión Amazonía has been the opportunity to test all this knowledge accumulated by researchers.

What is the land use problem in Guaviare?



What is the land use problem in Caquetá?



Source: UPRA, 2017
Figure N° 5 Rural land use in Caquetá



Martha and Luider, the couple who bet on their peace of mind and the wellbeing of the Amazon, went from coca growers to cocoa farmers in the department of Caquetá.
Photo: Héctor Suricata



LUZ MARINA MANTILLA CÁRDENAS

General Director of SINCHI Institute

SINCHI INSTITUTE AND REM VISION AMAZONIA PROGRAM: A PARTNERSHIP THAT BENEFITS THE AMAZONIA AND ITS PEOPLE

In 2016, Sinchi Institute and the REM (early REDD initiatives) program, promoted by the German Development Bank (KfW), signed a sub-agreement that materialized the research, science, innovation, and knowledge efforts generated by Sinchi Institute in an effort to contain deforestation in the Colombian Amazonia region. Thus, through a payment by results scheme, Sinchi Institute and REM Colombia Visión Amazonía program developed actions to reduce deforestation and poverty by promoting sustainable production processes to contribute to improving the quality of life of local populations, the conservation of Amazonian biodiversity and the achievement of the goal of zero net deforestation by 2030.

As a partner and executing entity of the Visión Amazonía portfolio, Sinchi Institute has developed and accompanied projects with farmer organizations that today account for the benefits in different modalities for seven initiatives in Guaviare and four in Caquetá, of which five were in agroforestry systems with rubber, cocoa, timber, two projects in non-timber products of the PNMB, one in sustainable tourism and restoration and three in livestock conversion.

These projects have benefited 1,421 families, and have managed to conserve 59,927

hectares of forest, with a conservation rate of 87% by 2021. In Land Planning, 225,326 hectares were impacted, and four value chains were supported, as follows: In Guaviare, an açai chain with a collection centre for 200 tons per month, a rubber chain with a plant to process 48 tons per month, two micro-processing plants, and a plant for oils and fats with a capacity of 110 tons per year. In Caquetá, a plant for oils and animal feed supplements with a capacity of 129 litres per month and a dairy processing plant with a capacity of 200 tons of cut salted cheese per month.

For effective monitoring and as a support to the communities, an open data platform, called MoSCAL, was structured, which accounts for the monitoring of the agreements since 2017 and records 21 variables and 16 indicators, is available at www.siatac.co/moscal/.

The impacts generated by this partnership between REM Visión Amazonía Program and Sinchi Institute show that, from the perspective of the amount of carbon avoided, it can be specified that with the development of 11 REM projects, whose investment to 2021 was COP 29,349,457,729, 59,927 hectares of native forest were conserved under agreements that store 6,994,452.9 tons of carbon in 13,988,905.7 tons of biomass.

In turn, this amount of carbon in equivalent CO₂ would be equal to 25,675,989.9 tons, which in the forest carbon markets would reach a sum of COP 413,106,135,733.8 at current prices for the year 2021. These figures show significant monetary sums in terms of the value of the conservation and carbon stock maintained by the conservation agreements that were managed.

In social terms, the program not only benefited 1,421 families, but also helped to leverage close to 170,000 workdays in these seven years, represented in the efforts of families to implement their productive processes. It is projected that the promoted value chains will generate more than 400 direct and indirect jobs. In interpreting the aforementioned figures, I must point out that for Sinchi Institute, the agreement with REM Visión Amazonía Program has been a very important instrument for promoting the management of the agri-environmental approach and model in the region through Pillar 3, an approach based on science, knowledge and innovation that has produced the results mentioned above, and has strengthened governance schemes based on the benefits of nature for the well-being of the rural communities of the Colombian Amazonia.

The new portfolio with livestock reconversion

Jaime Alberto Barrera, researcher at the Amazon Research Institute Sinchi, who participated in the structuring of the portfolio of activities, adds that “unfortunately, the country has always been seen from Bogotá, in a flat way and without the particularities of the regions”. Cattle ranching in the Amazon is a clear example of this myopia. The same policies, programs and financial mechanisms used to stimulate cattle ranching in different regions of Colombia, became the engine of deforestation in the Amazon, leaving aside the true vocation of these soils and the economic potential of having a standing forest.

“In fact, with funds from the GEF Heart of the Amazon program, which was formulated as part of the preparation strategy for Visión Amazonía, the Sinchi Institute was able to work with 24 organizations in Caquetá and Guaviare in their institutional and socio-entrepreneurial strengthening. Eleven of them were later able to access resources from the Visión Amazonía program. We are talking about important resources, projects of between COP \$2,000,000,000 to \$4,500,000,000,000 that had not been seen before in the Amazon region.

That a local association is able to execute such a high budget has not been seen before and this is a very interesting exercise for capacity building”, Jaime Alberto Barrera.



The Vergara family requested a loan for the cattle reconversion of their farm, freeing areas for natural regeneration and establishing live fences to divide the pastures. They are beneficiaries of an incentive for 40% of the value of their loan for complying with conservation agreements.

Photo: Héctor Suricata

“Our portfolio is not livestock development,” says Barrera. “Everywhere we went we were told with irony: ah, what a nice program against deforestation, promoting livestock! What we are trying to do is reconvert. In other words, in the same area we have, we can produce more milk and meat, free up areas, recover biodiversity indicators, recover all the conditions of the relationship between water, soil, plants and, obviously, reduce pressure on the forest.

In the Amazon region, the economic trend is towards dairy farming. Not because of attitude or vocation, but simply because it has been the institutional supply model and because of the cash flow it offers to the farmer. Dairy farming allows farmers to have access to “a check” every 15 days to cover the main expenses of the farm. In the department of Caquetá, for example, at least 68% of the farms studied in a Sinchi analysis have livestock as their main activity.

To close the dairy chain, Visión Amazonía decided to strengthen the marketing of cheese as the main dairy derivative, with a pilot marketing project in two points of sale, in order to establish the bases and meet the requirements to complement the Denomination of Origin and collective brand Queso del Caquetá, in a franchise model.

“We are talking about important resources, projects of between COP \$2,000,000,000 to \$4,500,000,000,000 that had not been seen before in the Amazon region

Jaime Alberto Barrera

A rebirth of rubber

In addition to livestock reconversion and cocoa agroforestry systems, another of the commitments are agroforestry systems with *Hevea brasiliensis*, from which rubber is extracted. Mario de Jesús Guevara Cruz, president of the Association of Rubber Producers and Traders of Guaviare (Asoprocaucho), knows this crop very well. It was the one he chose, to-

gether with his family and neighbours in the 1990s, to leave behind the hazardous coca economy in which they were involved.

“At the end of the 70s, they brought coca to this region, they brought it from Miraflores down and it spread throughout the department. I was very surprised because this region, after being so productive, ended up like this. In the countryside you couldn’t find a single chicken, much less a banana or cassava plant, everything had to be bought. Just as the money flowed, so did the blood, at that time, even though there was so much money, the region was very poor, and I say poor, because a region is measured by the capacity to generate different resources. There was nothing else in the region, but coca leaves, women, beer and weapons, all of that was a terrible combination”.

It was in the 1990s, says Mario Guevara, when he and many others began to explore economic alternatives, encouraged by the first crop substitution programs that appeared in the department. That is how the first trade associations emerged. The association of rubber growers in San José began with 12 families. “We started to work and everyone began to say: you are crazy. They called us idiots. But those who called us idiots are now in the cemetery, others are in jail and others have nothing, but we have rubber, many of us have been living only on rubber for 20 years”, he recalls.

There are already about 430 families living from rubber in Guaviare. It is estimated that there are about 2,000 hectares planted, but 200 in production. “It is a very good business because it is a product that sells itself. Today we get calls from Medellín, Cali, Bogotá and they ask us for latex, sheeting, rubber rubble, in other words, everything”.

A rubber crop can have a useful life of 30 years. “But, for that to happen, it is necessary that the person learns to know the tree and to scratch, because if you don’t learn, you damage the tree”, Mario warns. “That scratching has to be so perfect that the tree heals again. Now he is much more dedicated to administrative issues, to explore buyers, but so many years working with rubber, he has the technique fresh in his memory: “The tree

is divided into two sides, you scratch on one side and where you started to scratch, you must continue doing it for seven years, benefiting that side, then you touch the other side, also for another seven years; then, while you scratch one side for seven years, the other side is regenerating, that is, all the bark is regenerating and so on".

Con With the funds provided by Visión Amazonía, the association built a processing plant. The dream is to produce their own gloves, shoes for motorcyclists and other products. "Here the problem is that the State intends to make a presence, but it is very slow. While the State takes a step, all these people who deforest have walked miles. If we don't pay attention to this, the generations that come after us will not know what will

become of their lives, because the environmental decomposition that is taking place has no name", says Mario.

In the rubber chain, an agreement was also signed with Cenicaucho to strengthen the production and marketing of natural rubber of controlled viscosity and dry sheet L10, in order to access market niches other than the current ones. At the end of the agreement, in February 2022, the process of adaptation for the production of TSR-CV high-specification rubber was delivered, a product that is marketed at an additional US\$0.20 to US\$0.40 per kilo, a value that is redistributed among the producers integrated into the value chain model.



Rubber is one of the non-timber forest products that has proven to be profitable and environmentally sustainable. This is a tapping panel from a rubber tree in production.

Photo: Héctor Suricata



ANTONIO VALENCIA VILLEGAS

Coordinator Peer Projects Caquetá in ASOHECA

A RUBBER FOR EXPORT

On February 19, 2022, the inhabitants of La Montañita, Caquetá, accompanied the inauguration of a rubber processing plant that promises to become one of the economic engines of their municipality and of the growers linked to the Association of Reforesters and Rubber Growers of Caquetá (Asoheca).

"The studies identified the production of special rubbers to serve specialized markets, that is what we did from the Agro-environmental Development Pillar of Visión Amazonía, reaching agreements through Cenicaucho to support Asoheca and Asocap, organizations committed to the forests", said José Yunis Mebarak, general coordinator of Visión Amazonía.

Thanks to latex pools, specialized equipment and drying plants, the new plant can transform the rubber collected from farm plantations into a material known as TSR 20 with controlled viscosity, which brings a higher price on the market.

Eighty-two rubber producers in Caquetá and

33 in Putumayo received technical assistance from Visión Amazonía's agro-environmental extensionists to convert their production system and their farms into an Amazonian farm model that respects and coexists with the standing forest, for which they have signed conservation agreements for 1024 hectares.

"En convenio con Visión Amazonía programa REM, Ministerio de Ambiente y Ministerio de Agricultura desarrollamos un proyecto para producir un caucho especial, llamado técnicamente especificado con viscosidad controlada, garantizando a los productores campesinos un mayor ingreso por la compra de látex".

En la planta procesadora hubo la necesidad de hacer ajustes para cumplir con normas internacionales y poder gestionar aliados comerciales dispuestos a pagar por este producto.

Dentro de los retos, ahora Asoheca ampliará la cobertura a otros municipios del Caquetá porque saben que tiene un mercado internacional al cual llegar y poder beneficiar directamente a los caucheros de la Amazonía colombiana.



Non-timber forest products

Non-timber forest products are also part of the Agro-environmental Pillar portfolio. They have been a long-standing desire of those who are committed to sustainable development in the Amazon. José Ibáñez, from Patio Bonito, in San José del Guaviare, is one of them. Like most settlers, he grew tired of the hopelessness and dangers surrounding the coca economy and was one of the first to look for alternatives. "As community leaders we were very concerned and we started to meet and say what do we do", he recalls.

Thus, he arrived at the doors of the Sinchi Institute in search of scientific advice. "At the institute they made me understand that nothing of what people were really aspiring to do could be done. When I saw that situation, I told them 'well, if this can't be done, then what the fuck can it be done?' he says.

A joint reflection began with a question that seemed obvious: Why did the majority plant coca? In the first place, because coca is a precocious product in its production. In a matter of six or seven months after it is planted, with an aggressive fertilization system, it begins to produce profits. Secondly, it is a product that has continuity in its production. With a good fertilization system, every 45 days it offers the possibility of "scratching", generating continuous cash flow.

Third, it offers each farmer to move up in the production chain to the extent that they can transform the primary product, the leaf, into coca base. From the 300 to 500 kilos of coca leaf that a farmer harvests per hectare, he extracts 1 kilo of coca base. This reduction in the volume of the merchandise and the increase in value greatly facilitates trade in a region that lacks good roads. Finally, coca is a product with a guaranteed trade.

"That is why people have become so attached to coca. With this in mind, we asked ourselves what other product is similar to coca in its production system", Ibáñez recapitulates. Several of Sinchi's lines of research passed through the analysis: cocoa, rubber, acai, among others. "Until we arrived at Sacha Inchi", recalls Ibáñez, still excited.

This oleaginous species, from which an oil rich in omega 3, 6 and 9, similar to olive oil, can be extracted, seemed perfect to replace coca. The "sacha", as they call it, which is also known as "the Inca's peanut", begins its production system eight months after planting. It is a continuous production product with a system similar to cocoa, that is, it has its two strong production peaks in the summers, but all year long it generates fruit and, therefore, creates a cash flow. "Obviously, not at the levels of coca, but there is a continuous cash flow".

Another advantage is that it is not perishable. After the seed is dried on the farm, it can be stored for up to three months, which counteracts transportation problems associated with roads. As for the transformation to move up the production chain, this is precisely the objective that Ibáñez and other producers set for themselves and presented to Visión Amazonía. With the support of the Sinchi Institute, they presented a three-stage project. The first stage was to increase the production area from 12 to 56 hectares, with 56 families. The second stage aimed at the transformation process with the construction of a centre for oil extraction. The third focused on sales and marketing strategies. Today a 250 ml bottle of Sacha Inchi oil costs between COP \$35,000 and COP \$40,000, while the substitute product, olive oil, costs between COP \$15,000 and COP \$18,000.



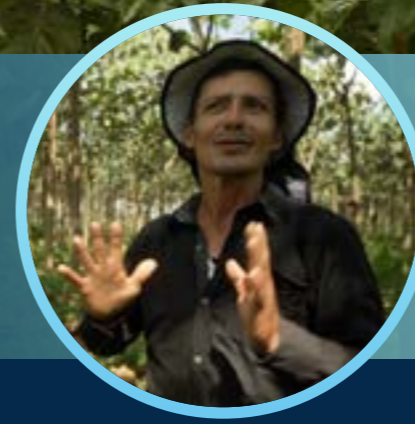
The studies identified the production of special rubbers to serve specialized markets, that is what we did from the Agro-environmental Development Pillar of Visión Amazonía, reaching agreements through Cenicaucho to support Asoheca and Asocap, organizations committed to the forests



Mario de Jesús Guevara

The organic production of sacha inchi in Guaviare has technical assistance from the Visión Amazonía program and for oil extraction with the technical assistance from the Sinchi Institute for product standardization.

Photo: Héctor Suricata



MAXIMINO MORALES

Beneficiaries of the Green Credits program

Maximino Morales is a farmer from La Carmelita jurisdiction, located in Puerto Asís, Putumayo who, until a few years ago, dedicated himself to growing coca, since drug trafficking had taken root in the municipality. The desire to work his plot with legal and sustainable activities led him to find in the balsa wood (*Ochroma pyramidale*), a promising, productive and protective species, which has provided him with great benefits.

At the beginning of 2022, Maximino accessed a green loan through Banco Agrario and signed a conservation agreement for 10 hectares of forests with the Visión Amazonía REM program.

During the time of the loan, Maximino received technical assistance, doing the planning of his property, protecting the water sources and aiming at the food security of his family.

For compliance with conservation agreements, demonstrated by satellite by the country's Forest and Carbon Monitoring System SMByC, Visión Amazonía granted him a capital incentive of 50% of the value of his credit.

"The balsa wood changed my life, it is a very lucrative crop because it is in great demand, especially in the border area. About \$35 million are paid for a load (truck) of balsa wood, and from a single hectare, which grows between 3 to 4 years, between two and three loads can come out", says Maximino.

The balsa wood is a species that has many uses: airplane platforms, surfboards, buildings, fabrics, among others. For a long time, it was exploited illegally. In Putumayo, trees were secretly cut and transported, risking the authorities seizing the product. Today, Corpoamazonía, manager of the green credits in Putumayo and environmental authority in the area, is willing to grant permits for the use of this promising species.

With this crop, conservation agreements are being reached that also provide economic opportunities to local communities.

Throughout the Amazon, the green credit program in December 2022 reached 1,061 peasant families who have committed to the conservation of 14,120 hectares of natural forest.

The Visión Amazonía program has installed two processing plants for canangucha. One is located in Villagarzón, Putumayo, in collaboration with the Inga community and the other in Remolinos del Caguán with Acaiconucacha.

Photo: Wilmar Mogollón



#AmazoníaSinLlamas

#AmazoníaSinLlamas was a digital campaign to prevent deforestation in the Colombian Amazon designed by Visión Amazonía REM program. It focused its efforts on social networks reaching 21 million people, linking more than 150 national and international artists, thousands of people, public, private and social entities at a cost of ZERO PESOS.

The campaign was born because year after year, when the dry season arrives in the Colombian Amazon, between the months of October and March, it starts logging and burning of the Colombian piece of the largest tropical forest in the world.

Concerned about the increase in deforestation and forest fires, #AmazoníaSinLlamas was born, an advertising campaign that sought to invade social networks with messages to motivate the conservation of the Amazon rainforest and discourage those who think about burning it and taking it over.

This campaign promoted teamwork to mas- sify the messages of prevention and social control in the face of the climate phenomenon of global warming.

First of all, it was defined that this campaign could not have an owner, it was designed as a collaborative work between government entities, international cooperation programs, civil society organizations, environmentalists and citizens concerned about the future of the planet, regardless of race, religion or political preferences.

The entities and organizations that joined the campaign had access to a programming grid, videos and graphic pieces through a DRIVE where they uploaded their collaborations and took any of the pieces included there to publish them, the important thing is to amplify the message among all of them.

Many people, nature lovers and renowned journalists, artists, singers, humorists, athletes, actors and actresses were also invited to support the campaign with videos that carry the message of conservation and protection of natural resources that the planet needs so much.

REACH 21 MILLION PEOPLE



DORA MARÍA SÁNCHEZ

Agroforestry Engineer, focal point of the Agro-environmental Development pillar in San José del Guaviare.

Dora María Sánchez arrived in San José del Guaviare 26 years ago in search of a better future for her family.

Together with her husband, Héctor Zapata, they bought a cattle farm in the village of Agua Bonita in the municipality of San José, settling in the region where her two children, Samantha and Felipe, were born. With their environmental knowledge, love for nature, they decided to bet on conservation and be an example of productive forest reconversion in the region.

Little by little, they freed up pasture areas for natural regeneration, completely replacing cattle ranching with agroforestry systems for use, such as rubber and timber, which provide seeds for the forest nursery, trying to promote the productive model among neighbors and friends who described them as crazy people.

This is how the “Ñupana Reserve” was born with a family made up of four members convinced that the true wealth of the property is nature and the biodiversity associated with it. Today they point to nature tourism, looking to provide country lodging, offer tourists tours of forest paths, showing the transition from a cattle farm to a natural paradise.

In Ñupana, voluntary rehabilitation of wildlife victims of illegal trafficking seized by the authorities is done, including ocelots, mar-

gays, macaws, parrots, cusumbos, howler monkeys, churucos, toucans, and owls, which have passed through Ñupana. Many have been released, others remain in their difficult reintegration process, and others are unable to survive irreparable damage from hunting, mistreatment, and/or captivity.

The maintenance and care of more than 50 animals in the process of rehabilitation, is not an easy or economical task, but they manage with sponsorships, wildlife trekking offers, sale of T-shirts with images of the species in rehabilitation, helping to guarantee them the life and good return to their habitat.

At Visión Amazonía, Dora María is the focal point of the Agro-environmental Development pillar, in charge of dialogue and development of activities with local authorities.

Additionally, she coordinates activities with peasant organizations that develop projects around non-timber forest products such as rubber, cocoa, açai, sacha inchi, canangucha berry, sacha inchi, canangucha; to the municipalities in execution of agreements, with groups of rural extension agents that provide technical assistance to peasant families linked to productive projects and green credits, accompanying the management of resources, aimed at achieving proposed results.

"I have always said that for us to change the current production system, we have to make this more profitable than livestock farming, and that is the challenge we have to achieve", said Ibáñez. The general calculation that he presents to his neighbours is that, by planting three hectares of this crop, a family achieves the necessary income to live with dignity. "To live with dignity is to be able to cover the costs of daily living, the children's school, the market, the wardrobe and to have a surplus for their things", he says.

Another non-timber forest product that is being encouraged is the acai, an exotic fruit produced by the *Euterpe oleracea* palm. Visión Amazonía has invested in the construction of plants to process its pulp in San José del Guaviare.

In addition, Visión Amazonía supported the Productive Alliances program of the Colombian Ministry of Agriculture and Rural Development in Vaupés, Guainía and Caquetá, financing and accompanying 12 alliances in

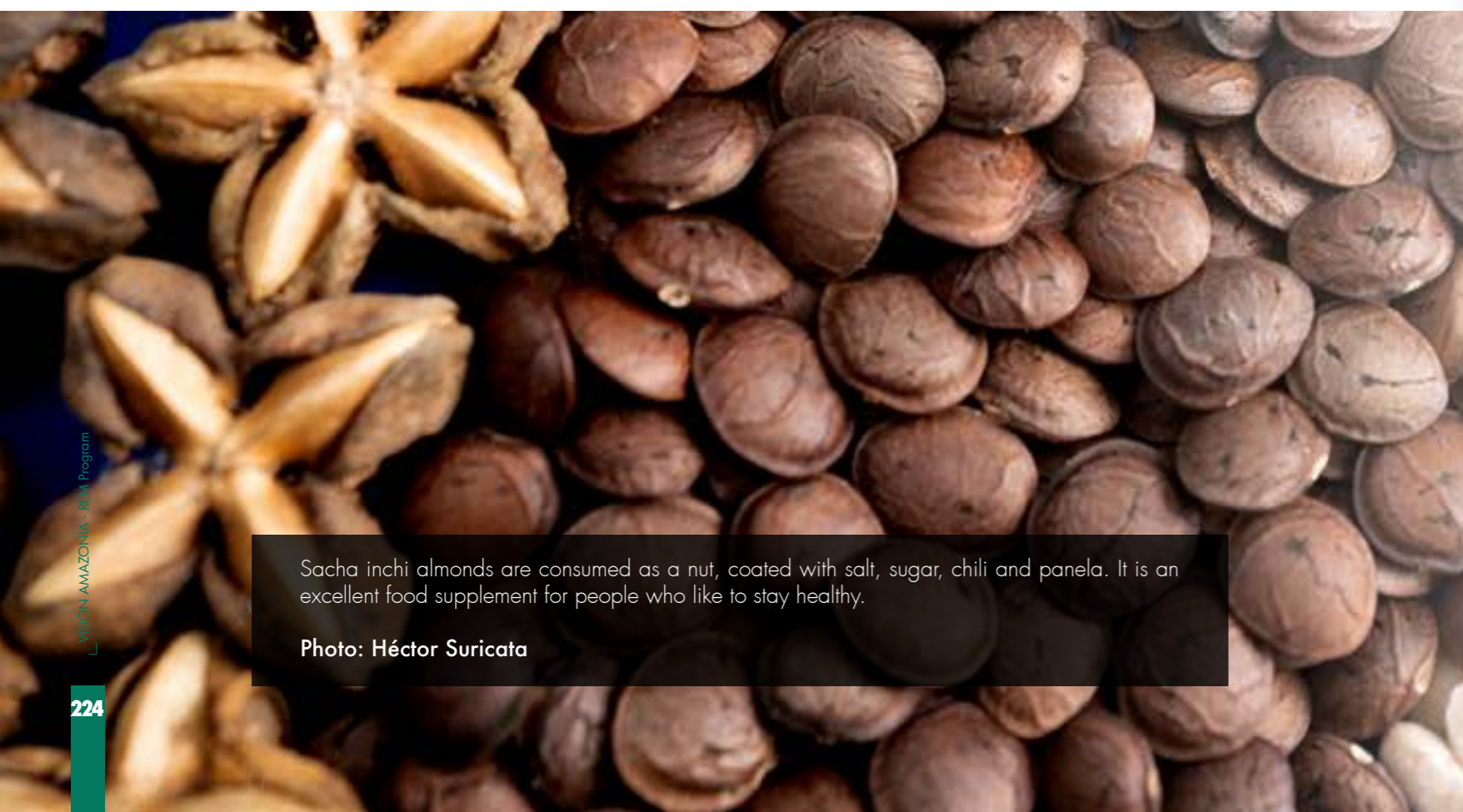
productive activities, such as livestock reconversion, rural cheese-making, fariña (manioc flour) production, chili bell pepper and pineapple planting. As basic food security products, artisanal fishing and meliponiculture (stingless bees).

The last productive system identified for the agro-environmental pillar was nature tourism. "That is why we have a rock art project in Guaviare and a nature tourism project at the confluence of the Caguán and Caquetá rivers in Caquetá", says Yezid Beltrán.

The commitment to nature tourism as a productive alternative for the communities is increasing, since the indigenous pillar also finances three nature tourism initiatives in the region, one in the Yahuaracaca lakes in Amazonas; another in the Mavicure Hills, in Guainía; and another in Jirijirimo, Vaupés. In addition, the intersectoral pillar supported the strengthening of nature tourism in the Sierra de La Macarena Route, through the Natupaz Corporation.

Main ingredients extracted and value-added products developed by the Sinchi Institute from PNMB

COMMON NAME	SCIENTIFIC NAME	NATURAL INGREDIENT	VALUE-ADDED PRODUCT	
			FOOD AND NEUTRACEUTICALS	COSMETICS AND PERSONAL CARE
Andiroba	<i>Carapa guianensis</i>	Oil	-	Hand and body soap Hand creams
Asaí	<i>Euterpe precatoria</i>	Oil	Clarified and carbonated beverage	Hand and body soap
		Powdered ingredient	Hard ice cream	
		Microencapsulated powder ingredient	Beverage on its own or mixed with other fruits	
			Fruit powder for reconstitution	
		Fruit pulp		
			Rolled fruit snack	
Bacao o maracao	<i>Theobroma bicolor</i> Bonpl.		Chocolates	-
Camu camu	<i>Myrciaria dubia</i>	Powdered ingredient	Beverage on its own or mixed with other fruits	-
		Microencapsulated powder ingredient	Jam	
			Fruit pulp	
Canangucha, miriti, moriche	<i>Mauritia flexuosa</i>	Oil	Dressings	Lip balm
		Microencapsulated oil	Beverage on its own or mixed with other fruits	Hand creams
		Powdered ingredient	Hard ice cream	Hand and body soap
		Microencapsulated powder ingredient	Rolled fruit snack	
Caraño		Essential oil	-	Soap scents
Copaiba	<i>Copaifera officinalis</i>	Oleoresin	--	
Copoazú	<i>Theobroma grandiflorum</i> (Willd. ex Spreng.) K.Schum.	Fat or shortening	Beverage on its own or mixed with other fruits	Hand and body soap
		Powdered ingredient	Carbonated drink	Lip balm
		Microencapsulated powder ingredient	Hard ice cream	
			Fruit powder for reconstitution	
			Fruit pulp	
			Rolled fruit snack	
Chambira o curnare	<i>Astrocaryum chambira</i>	Essential oil	-	-
		Pigment powder	-	-
Chontaduro	<i>Bactris gasipaes</i> Kunth	Oil	Flours	-
			Baked goods	
			Fruit pulp	
Inchi	<i>Caryodendron orinocense</i> Karst	Oil	-	Hand and body soap
Milpesos, seje	<i>Oenocarpus bataua</i>	Oil	Dressings	Hand and body soap
		Powdered ingredient	Hard ice cream	
			Fruit pulp	
			Rolled fruit snack	
Mil pesillos	<i>Oenocarpus mapora</i>	Oil	-	-
Sacha inchi	<i>Plukenetia volubilis</i>	Oil	Roasted seeds	-
		Microencapsulated oil	Natural and flavoured vegetable milk	
			Baked goods	
Ñame morado	<i>Dioscorea</i>	Pigment powder	Starch	-
			Baked goods	-
Umari amarillo y negro	<i>Paraqueiba sericea</i>	Oil	Fruit pulp	-
Tucuma	<i>Astrocaryum aculeatum</i>	Oil	-	-



Sacha inchi almonds are consumed as a nut, coated with salt, sugar, chili and panela. It is an excellent food supplement for people who like to stay healthy.

Photo: Héctor Suricata



FLAVIANO MAHECHA

Legal Representative until 2022 and Member of the Association of Agricultural Producers for the Economic Change of Guaviare (Asoprocegua)

I have always been a leader, since I was 21 years old. I started as president of community action in Meta. When I arrived in Guaviare, after a short time I was hired as a leader and representative of the parents, then as president of the board of that village, San Francisco, where I stayed.

In 1997 we began to create Asoprocegua. We met with 39 presidents of the Trocha Ganadera, also with the accompaniment of six presidents of inter-rural settlements. We always saw the need for an interlocutor for the farmers before the municipal, departmental, national and international authorities. We were able to create it on September 7, 2001. Furthermore, we were seeing that in the midst of this war, our sons were going to do their military service, not to our beloved homeland, but to the illegal groups. In the same way, these boys were focused on scratching coca and buying merchandise, instead of preparing themselves to be the men of tomorrow. Entire families were being wiped out. We wanted an association that would allow us to seek an economic change in Guaviare.

Many of us were afraid because the same community attacked us, they told us, "you are crazy", "why are you creating an associative union", "what are you going to live on if not coca", "why are you going to stand up and say No to coca and yes to the environment

and education, that is crazy, there is nothing better than money".

In 2006, with Sinchi we started a research project, together with the European Union, the Mayor's Office and the Governor's Office, in which we began to see the importance of our forests. The Sinchi Institute transferred to us the knowledge and know-how of three products that we found in the forest: Acai, Seje and Moriche.

These products gave us the guidelines to complete the first line of non-timber forest products. The second line of production was dual-purpose cattle, i.e., meat and milk. The third line was timber products.

Through Visión Amazonía we signed an agreement with 175 families to preserve around 7,485 hectares of forest and harvest them. The objective is that these families can market 2,300 tons of fruit per year; badly counted, let's say, that would be equivalent to COP \$1,000,000,000 per ton, that is approximately COP \$2,000,000,000,000 that we could move in a year.

Today I am very happy to see that the young people are not going to the guerrillas, the paramilitaries, to scrape coca or buy merchandise, but that they are coming to Asoprocegua with resumes to look for work.

Rural extension

Along with productive projects, the Agro-environmental Pillar attempted to fill another historical gap in the region: having specialized extensionists in the Amazon region. This is the minimum commitment when it comes to strengthening high-value production chains. The majority of agricultural technicians trained in the area have access to a type of education that does not correspond to the vocation of the Amazonian territory and, therefore, the same development model continues to be perpetuated.

"One of the most significant advances in the pillar is agricultural extension", says Yezid Beltrán, "if I had to choose only one achievement in this pillar, it would be the work with agricultural extensionists in the Amazon region".

In 2017, while the law was being discussed in Congress, Beltrán convened all the allies, including the Sinchi Institute, the Ministries of Environment and Agriculture, Finagro, Banco Agrario, CIAT and regional unions to jointly discuss the topics that should be included in the training of agricultural extension workers in the Amazon region. It was thus defined that the contents of the training modules for agricultural extensionists should include technical assistance to regional production systems, food security, farm planning, credit, market and risk management, ecosystem services, methodology and pedagogy of rural extension.

In an alliance with the Universidad de la Amazonia, a program was developed to train them with an agro-environmental approach, a requirement of Law 1876, derived from the Havana Peace Accords, which regulates the implementation of the National Agricultural Innovation System [SNIA].

In 2018, 60 extensionists were trained and in 2019 another 180 professionals will be trained in conjunction with the National Plan for the Substitution of Illicit Crops. In 2020, an agreement was signed with the University of the Amazon to train 100 new extensionists. The Covid-19 pandemic intervened and a quick shift to virtual education was necessary.

Visión Amazonía also decided to support rural extension in the municipalities and regional governments with a simple model, according to which, for each extensionist hired by the municipality or regional government, Visión Amazonía offered to hire two additional professionals. In this way, agreements were signed with the municipalities of San José de Guaviare, El Retorno, Miraflores, Cartagena del Chairá, San José del Fragua, among others.

Along with the training and implementation of the agricultural extension service, the program has accompanied the preparation of Departmental Agricultural Extension Plans in Caquetá, Meta, Guaviare and Vaupés, a tool that complements the activity and enables the trained professionals to provide their services in the Agricultural Extension Service Providers, an instrument that is part of the National Agricultural Innovation System.

Green Financial Instruments

Another strategy adopted by the Agro-environmental Pillar was the creation of green financial instruments. For this purpose, Visión Amazonía signed an agreement with Banco Agrario de Colombia, a public institution and the only financial intermediary with direct branches in municipalities with high deforestation rates.

La The idea is that farmers in areas of high deforestation who are committed to agro-environmental projects will find support in the financial system. The US\$1,167,000 agree-

“

One of the problems in the Amazon is that traditionally the same bank officials convince the settler to invest in cows. They do not trust those who want to bet on other alternatives and do not give them credit. It is difficult to provide credit because almost nobody has land titles

”

José Yunis Mebarak



Generational change has played an important role in the implementation of all agro-environmental projects. This is the case with ASOPROCEGUA, where young people have taken on leadership roles in administrative matters, production and the development of new products.

Photo: Héctor Suricata

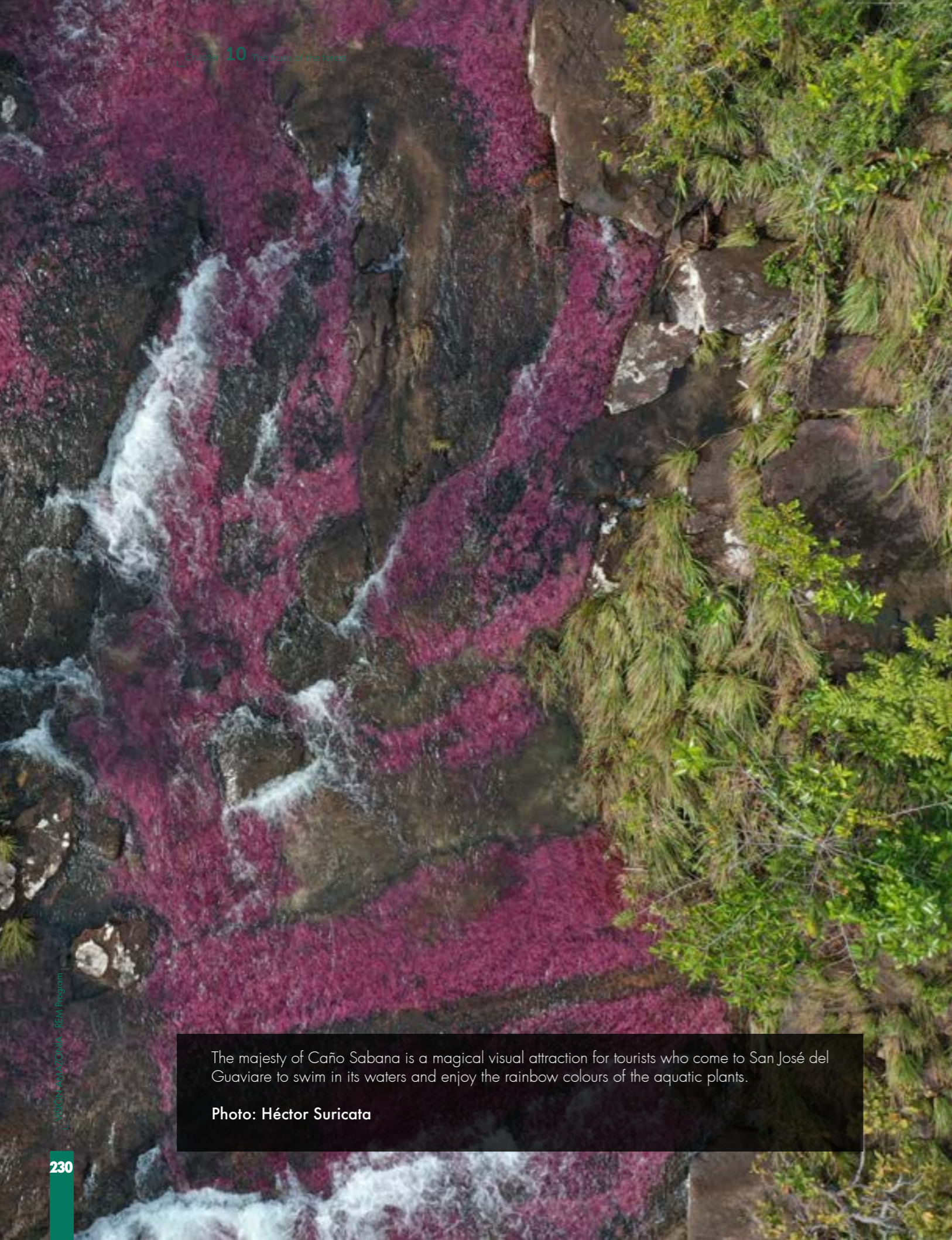
ment is for capital compensation of up to 50% of the value of the loan disbursed, including technical assistance. The Green Financial Instrument covers eight lines of credit aimed at seeding compact forest plantations with natural regeneration, agroforestry systems with rubber, cacao, peach palm (chontaduro), copoazú, cacay, livestock conversion and non-timber products such as acai, as well as fish farming with Amazonian species, including pirarucú, arawanas, black pacu (gamitanas) and cajaros.

“One of the problems in the Amazon is that traditionally the same bank officials convince the settler to invest in cows. They do not trust those who want to bet on other alternatives and do not give them credit. It is difficult to provide credit because almost nobody has land titles”, explains José Yunis.

Another financial instrument that was added to the battery of options was the Transformation of Sustainable Production (ITPS) in association with Finagro. This is a pilot program of 104 credits that includes interest rate incentives, area release, specialized technical assistance and land planning, with the objective of promoting the transformation of agricultural production systems developed in areas

of high ecosystemic value. The results of this pilot program are expected to be scaled up, approved by the National Credit Commission and being launched in the market.

One of the historical weaknesses of development projects in the Amazon is that the initiatives are kept alive as long as the support of the organizations involved lasts. Traditionally, the productive projects accompanied the farmers for 1, 2 or 3 years, who ended up saying, “Well, they left and I don’t know how to provide assistance, transformation, markets”, says Yezid Beltrán. This has been the history of bonanzas and bankruptcies in the Amazon. Although the agri-environmental commitments continue to be vulnerable, like many agricultural sectors in Colombia, consolidating true value chains is another of the ingredients needed to stop deforestation. And for the sustainability of productive projects, they are accompanied by a toolbox that includes agricultural extension, green credits, innovation and technological development in the chains, under zero deforestation agreements and productive alliances.



ANDRÉS DAVID GRISALES RAMÍREZ

Andrés Grisales, Nature Tourism Project with Corpolindosa, Guaviare

My father arrived in Guaviare at the time of the coca boom, although he was never involved in it. As he had studies, he had the opportunity to become a teacher in La Libertad. His name was Javier Grisales. In addition to being a teacher, he was also a police inspector and then he came here to the capital, and held various positions.

Trankilandia began in 1992 when he was given the opportunity to acquire a property with the intention of working in cattle raising. The farm has an extension of 180 hectares.

My father began to bring friends from work, and those friends began to like the place because it has very beautiful waters, and they began to come back, but with the family. Then around that time, 2008 or 2009, he decided to leave the cattle aside and with the cattle he sold, what he did was to invest the money here.

As time went by, the neighbors began to be much more encouraged to show their sites. When tourism started, there was not as much danger as in the past. But I know from my

parents that at the beginning the guerrillas and then the paramilitaries used to come here a lot. At that time there was also a route of traquetos (drug-traffickers). I remember that dump trucks, tanker trucks, trucks loaded with drums of gasoline used to pass through here.

With the popularity of Caño Cristales in the Macarena, we realized that these plants that we also had here, we had to protect them. When social networks began to gain strength, people began to post photos, and because of that we began to receive more public.

We are associated with Corpolindosa. Through this organization many entities and associations have been supporting these enterprises. That is how Visión Amazonía appeared and conservation agreements were established. After my father was murdered I received the responsibility for this place.

The idea is for Trankilandia to be a quiet place to rest, for people to come and enjoy nature, the sound of the water, the landscape, the aquatic plants, in other words, for it to be a place of tranquility, that is Trankilandia.

The majesty of Caño Sabana is a magical visual attraction for tourists who come to San José del Guaviare to swim in its waters and enjoy the rainbow colours of the aquatic plants.

Photo: Héctor Suricata



Agro-environmental rural extension has played a fundamental role in the conceptualization of the Amazon farm model. Such is the case of the cocoa producers of Calamar, Guaviare, who acknowledge the support received by Visión Amazonía professionals who accompany them in the implementation of a sustainable development model that keeps the forest standing and demonstrates that it is possible to live from the forest without cutting it down.

Photo: Héctor Suricata



JORGE VALLEJO

Owner of Charcolandia, another nature tourism destination of Corpolindosa

I became involved in tourism about six years ago, after the peace process. Before that, we had been working with the eradication of illicit crops. I arrived approximately in 1998 in Guaviare. I came from the Muzo mines.

After that we dedicated ourselves to cattle ranching, because it was the most profitable thing to do. Cattle ranching was legal at that time, but the government told us that cattle ranching was not allowed in these areas.

This was declared a Serranía de la Lindosa preservation zone. When that came out, we did not know exactly what it was. They attacked us, telling us that we could no longer have cattle ranching, that we could no longer have extensive crops, anyway. Then Corpolindosa was created in 2006 and we began to conform with all the owners and inhabitants settled in the Serranía de la Lindosa, which is made up of 17 villages. There we reached agreements with institutions, communities and the Ministry of the Environment.

Corporlindosa was created to defend our rights, because there are many inhabitants here and they say to them, without any basis, "it is not your turn to leave", "you cannot do this", because we know that there are some

restrictive regulations, but there are also some duties and rights for us. There are possessions here from 60 to 70 years old.

I was one of the first who had cattle ranching here, today I have not had a single head of cattle for six years. Here I have 27 hectares and today everything is for conservation, because I got the chip and I changed the livestock issue, but not everyone can do it because it is their livelihood and way of life. There are about 1,300 families registered in the Serranía de la Lindosa.

Corpolindosa managed to convince 82 associates to trust in Visión Amazonía and Sinchi. Among those 82 associates we managed to preserve exactly 4,638 hectares of forest. We were approved approximately COP \$2,400,000,000 for this livestock reconversion project and to work in tourism.

After I entered the conservation stage I said, "this is my legal alternative, I am not affecting anyone, I am taking care of my land, my forest, I am giving a good example to my successors, to my children and I am telling them that this must be taken care of". Just as I started, I want my children to also take care and begin to be conscious of the what is that they have to recover.



EDWIN ALEXIS HURTADO DUCUARA

Veterinary doctor, focal point of the Agro-environmental pillar in the department of Caquetá

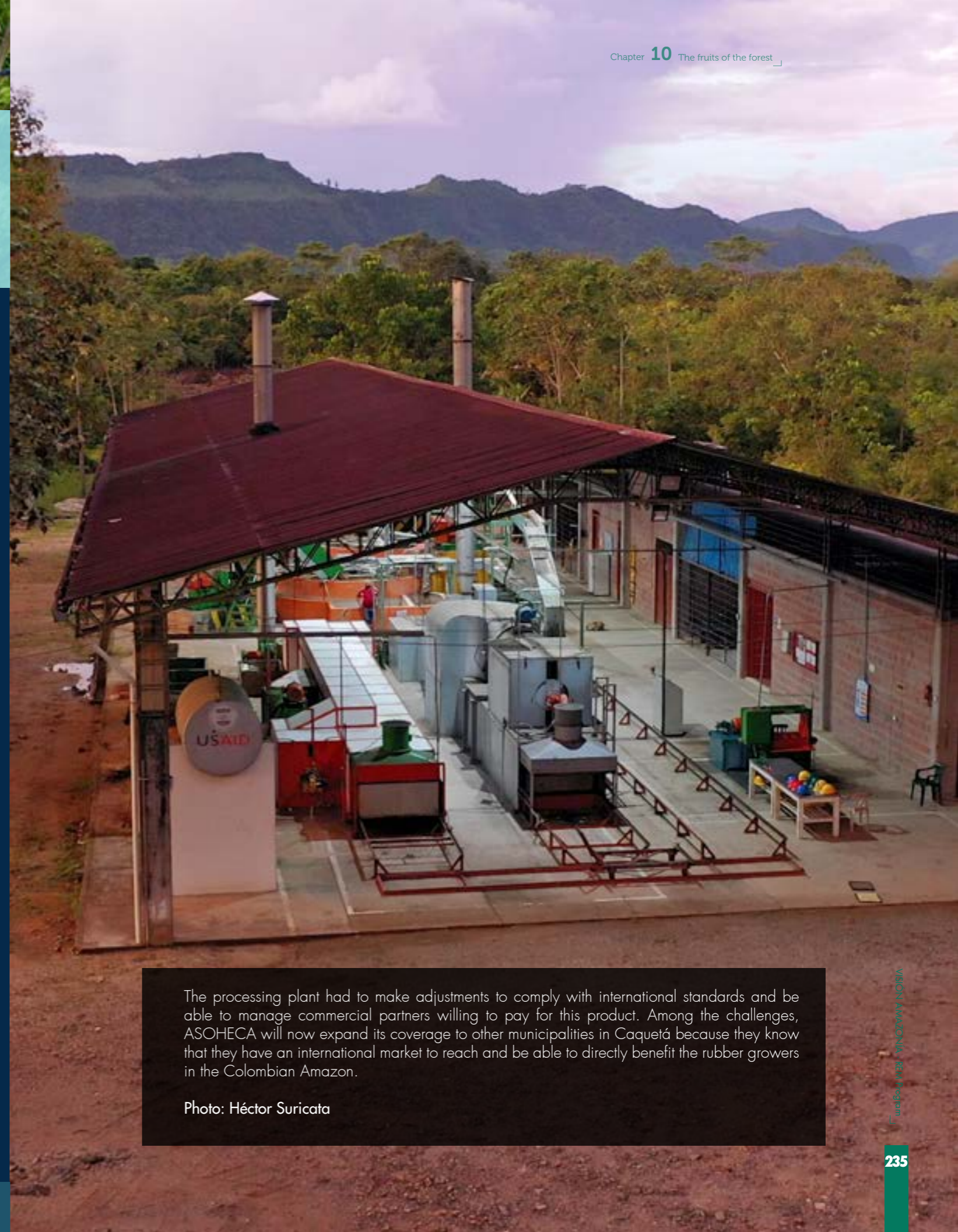
Doctor of veterinary medicine and animal husbandry from the University of Amazonía, that is what his professional diploma says and as most of his colleagues in his class, he had the expectation of specializing in bovine reproduction and innovate in the territory with the introduction of genetic crosses that would contribute to increase the productivity of the livestock system in this region. Everything was going well according to his plans until, upon receiving his professional degree, he was offered the opportunity to participate in a livestock reconversion project. He had no idea what they were talking about, but curiosity forced him to accept, and then, he understood that genetics is secondary, because for it to express itself, the animals must be well nourished and well fed. A difficult condition in the extensive and extractive livestock systems predominant in this region.

Much later he had the opportunity to join the Visión Amazonía program, and although he was already known by the union and social organizations in the territory, it was strange to many that a veterinarian, promote, support and supervise alternative production projects (rubber, cocoa, nature tourism, Non-Timber Forest Products [PNMB] and livestock reconversion), in which it is offered to small producers, economic and productive alternatives that contribute to the diversification of production, food safety, increased income and improving the quality of life of peasant families. What many did not know is that, being a veterinarian, he also belongs to the indigenous reservation Yaguara II, in San Vicente de Caquán, the place where he was born, grew

up and learned to love and care for mother earth. Ideals and thoughts that he has been able to strengthen with postgraduate studies as a specialist in project management and with a Master's degree in Agroforestry.

Now, for him, Visión Amazonía has been a program that generates hope because all its investments were structured by the social base of the peasant organizations and those that demonstrated administrative capacity had the opportunity to become executors, implementers of their own development, with good results in most cases. This development model favoured organizations of cocoa growers, rubber tappers, cattle ranchers with cattle reconversion projects and organizations that bet on nature tourism and the use of non-timber products from the forest [PNMB], whose social base are the same small producers located in the Amazon's Arc of Deforestation.

In addition, with the interventions of Pillar 3 - Agro-environmental Development, the vision of cattle ranching was confronted; on the one hand, it was demonstrated to the small farmer that this activity is more profitable when he takes care of the forest, water, reduces grazing areas, frees degraded areas, optimizes the intervened areas of the property and also, it was demonstrated to the cooperating workers, to the state and to the society in general, that this activity is the main livelihood of thousands of families and that with an integral intervention its development contributes to the social, economic and environmental welfare of the Amazon.



The processing plant had to make adjustments to comply with international standards and be able to manage commercial partners willing to pay for this product. Among the challenges, ASOHECA will now expand its coverage to other municipalities in Caquetá because they know that they have an international market to reach and be able to directly benefit the rubber growers in the Colombian Amazon.

Photo: Héctor Suricata



The forest nurseries organized directly on the farms of the rural producers involved in the Visión Amazonía program have been an excellent alternative to guarantee the restoration of cleared areas.

Photo: Edwin Hurtado



Chapter

11

Amazonia 2050

(Visión Amazonía)

VISIÓN AMAZONÍA
REM Program



Waterfall Cortinas del Diamante
Photo: Hugo Rueda



On November 1, 2021, this time in the city of Glasgow, Scotland, the Colombian government and its three allies in the effort to stop deforestation in the Amazon returned to the table. Although the 2009 promise to bring deforestation in the Colombian Amazonia to zero by 2020 was impossible to fulfil, and still seems far off, the determination to achieve it brought them together again.

Taking advantage of a new climate change summit, Norway and Germany announced a contribution of \$ 33.5 million for sustainable forest management in Colombia¹.

"Colombia has one of the most important bio diversities in the world. You have made a difference in forest protection", said Norwegian Prime Minister Jonas Gahr Støre, accompanied by President Iván Duque, and opened the door to scale up the level of ambition in the coming years with the goal of achieving zero deforestation by 2030.

When thinking about the future of the Colombian Amazonia, Alfredo Molano's warning comes to mind: "Any attempt to modify a reality that is not inspired by the course that determines it, necessarily leads to failure". Part of this new reality in the Amazonia is Visión Amazonía, the most ambitious project ever implemented in the region with an environmental focus. It is difficult to find anyone involved in the different stages of Visión Amazonía who does not highlight the value and necessity of this strategy. But it is also true that most believe there are lessons learned to correct course in the effort to keep deforestation at

bay. This and the following generations will have to carefully review the lessons learned from Visión Amazonía.

Looking back, Alberto Galán, director of Fondo Patrimonio Natural, says that Visión Amazonía was a strategy in which there was no alternative but to "build the rails, design the wagons and carry the load, all at the same time. This is an example of making policy and design and execution almost simultaneously".

The learning achieved should serve to avoid future setbacks. Now that the rails and cars are in place, the process of executing new funds should be a little simpler.

It also laments the fragility of the program's financial sustainability. "Visión Amazonía has elements of sustainability that should be discussed. Financial sustainability is not just about going after money", says Galán. In this sense, the experience gained from this and other projects deserves a systematic review.

Why did Visión Amazonía fail to stop deforestation as planned? "You cannot ask a project to solve the problems of a country's government structure", is Galán's response. For him, Visión Amazonía has made it possible to see again "the institutional fragilities, the lack of knowledge of the Amazonia, a notable dose of improvisation as a consequence, the negotiating position advantage of the internationals, and an important lack of knowledge of the execution capacities at all levels. A basic point of analysis is to understand what goes from international conventions to the arrival on the ground to comply with the guidelines

¹Vaca" europea de US \$33,5 millones para Colombia para frenar la deforestación. El Espectador. 1 de noviembre 2021. <https://www.elspectador.com/ambiente/vaca-europea-de-us-335-millones-para-colombia-para-frenar-la-deforestacion/>



JOHANNA MORENO

Cocoa producer from Calamar, Guaviare

A 'GOLDEN COCOA' EMERGES IN THE FORESTS OF GUAVIARE

"Many will say that I am crazy, but every morning I enter the crop and greet my cocoa plants with love and enthusiasm 'good morning, my loves' and today those plants give me back the joy, they have made me win this award, a recognition of my work, perseverance and commitment" are the words of Johana Moreno, one of the winners of the "Cacao de Oro 2022 [Golden Cocoa 2022]".

Johanna produces in the Amazon one of the best cocoas in the country, and this is not an exaggeration: this Afro woman was part of the winners' podium of the Cacao de Oro contest, a contest that aims to promote the production and export of high quality cocoa in the country. Aroma and flavour is not the only thing that is rewarded, in this contest the special prize, 'Inclusive Sustainable Cocoa [CIS]', is awarded, which values the good practices of inclusion and sustainability developed by organizations and their producers. Johanna Moreno, was the winner of this spe-

cial award, a recognition of inclusion, being a mother head of household and Afro woman who includes many other families in the harvesting process.

Johanna Moreno is the daughter of a couple from Chocó who left their homeland to come to Guaviare in search of opportunities. Like her parents, she decided to dedicate herself to cultivating the land and growing cocoa.

"Being one of the winners of the Cacao de Oro de Colombia contest means pride, that we have a good product, which is also sustainable and fills us with peace and joy every day," says Johanna Moreno, who represented the municipality of Calamar and the Association of Producers, Traders and Transformers of Cocoa of Guaviare and Southern Meta - ASOPROCAO in the contest.

In these four years dedicated to cocoa cultivation, Johanna has discovered that good practices do pay.



Rodolfo Andoque is one of the elders of “knowledge holders” of the Andoque people in Araracuara, Caquetá, who contributed to the project to strengthen the Andoque language and rescue ancestral knowledge.

Photo: Eduardo Ariza



In the Peregrinos lagoon complex, a nature tourism project was developed that included bird-watching trails and tourist excursions over flooded areas, using fallen tree trunks. This trail leads to “La tierra de los Gigantes” (the land of the giants) where millennia-old ceiba trees can be admired.

Photo: Janeth Bougard

derived from such conventions and the commitments undertaken. This is a fundamental issue to discuss and understand the role and added value of international cooperation”.

Alejandra Torres, another of the managers of Visión Amazonía, from the international office of the Ministry of the Environment, does not hesitate to say that “it has been a project that has really strengthened the country’s capacities”. And to those who inherit the responsibility of keeping deforestation at bay, he advises on “the goodness of thinking big, of coordinating and carrying out collaborative processes. Although they are processes exposed to different risks, if there is enough critical mass and enough actors involved, then the force will carry it forward”.

For her, one of these risks is, and will surely continue to be, abrupt changes in the government. “I remember a lot of sitting around waiting for the next minister to arrive to tell him/her about Visión Amazonía. I always did it with my fingers crossed and thinking that he/she wouldn’t think it was important and would put it aside. I think what saved Visión Ama-

“

It has been a project that has really strengthened the country’s capacities...

”

Alejandra Torres

zonía was that there were many eyes on the project and many actors were supporting it at the international level”.

Camilo Ortega, former coordinator of the REDD strategy in Colombia and later advisor to GGGI, the consulting firm that participated in the structuring of Visión Amazonía, looks back and believes that “one of the points that would definitely have had a greater impact is that Visión Amazonía would not have been a process led only by the Ministry of the Environment, but coordinated by the Presidency of the Republic. Deforestation is a process that has multiple causes, and only with an adequate coordination mechanism can it be stopped. This way, he believes, it would have been easier to establish a link with the security forces.

Another problem detected by Ortega is that, by placing the coordination of the strategy in the Ministry of the Environment, the dialogue with the Amazonian indigenous peoples becomes more complex. “Many times, these processes are complicated by issues of prior consultation and other political tensions. Many times, I went to talk to them about REDD, and they told me that they had no water, energy or gas. So, all the issues resulting from the little presence of the Government, are a problem for the only officer who visits them from time to time”.

Carolina Gil, director of Amazon Conservation Team in Colombia, insists that any redesign of the program should lead not only to requiring indigenous organizations to develop those “western capacities that the exe-

A ferry operates on the Caguán River, transporting agricultural products, supplies and vehicles from one side to the other. This is an example of intermodal transportation where river highways provide a low-emission cargo and passenger transport solution for the residents of the lower Colombian Amazon.

Photo: Edwin Hurtado

cution of a project cycle demands, but also from the other side should be a reading of how the procedure or the cycle responds to the reality of the indigenous people”.

Along these lines, Benhur Teteve, advisor to the Indigenous Pillar, believes that Visión Amazonía sets out a new path for participatory processes with indigenous peoples. “In a certain way, the process with Visión Amazonía, although it was not developed as a prior consultation, turned out to be even more of a guarantee than the prior consultation itself. This so-called “participatory form” had everything. It was not only the participation of organizations that had the orientations of the traditional ones, but also of various sectors within the indigenous organizations, among them grandparents, women, and youth, this was carried out throughout the six Amazonian departments”.

Carolina Jaramillo, former coordinator of GGGI in Colombia, highlights as one of the main achievements of Visión Amazonía, that “it put everyone to work together with a common purpose, in a territorial approach under important international performance parameters”. It also strengthened the forest and carbon monitoring system and the Colombian institutional framework to control deforestation.

“Without this program, I really don’t know where we would be,” says Jaramillo, although none of these virtues hide some obvious criticisms: “Visión Amazonía fell short on other things. One of them is that it never consolidated the Amazonia development policy that everyone imagined at the beginning. When it was conceived, that is why it was called Vision, it was always said that this had to be the vision for the development of the Colombian Amazonia, and today it is a government program with many limitations and very little political appropriation at the minister’s level. It is just a program of the Ministry of the Environment”.

Thinking about future development, she draws attention to a structural aspect: “Colombia is a country with sufficient financial maturity to

have been able to develop a national fund to execute all these resources; that opportunity was missed, and we ended up giving it to the IDB and KFW, through Patrimonio Natural, which has good things and can be better. Donors, instead of helping to strengthen national capacity, went with the sure thing, and for them the sure thing are the multilateral institutions. It is understandable, but it is a shortcoming of international cooperation”.

A point highlighted by several voices, is that the forest monitoring system was practically built and depends on international cooperation. In the case of a system of such great importance for the country, it is a sign of a delicate political-administrative oversight that approaches the realms of national security.

For Christiane Ehringhaus, after advising the efforts in Brazil against deforestation and coordinating the KFW delegation for Visión Amazonía, one of the lessons learned “is that it is very worthwhile to carry out these participatory processes, not only with the indigenous people, but also with farmers”.

Although deforestation reduction, the main objective of the program, has not been conclusive, she highlights the growth she has seen in the program’s implementation curve, and also the identity that Visión Amazonía has gained over time. “Having an implementation structure with a routine, that is worth gold, because this ends up absorbing new resources, even new programs in the pipeline can do it”, she says.

She agrees with several Colombian voices on that the involvement of the Ministry of Agri-

“

it put everyone to work together with a common purpose, in a territorial approach under important international performance parameters

”

Carolina Jaramillo

culture “was bad and working on deforestation without working with agriculture is impossible”. Strengthening command and control, understanding that the country has been at war and the peace process is just being implemented, is another challenge pointed out by Ehringhaus.

Dora María Sánchez, Sinchi focal point in Guaviare, believes that future phases of Visión Amazonía should “go directly to the organizations that are already strong and have been gaining experience. I say this because a lot of time is wasted with implementers, and a lot of resources are dissipated on administrative issues with intermediaries”.

Edersson Cabrera, coordinator of the Enabling Conditions Pillar of Visión Amazonía, remains concerned about the financial sustainability of the National Forest Monitoring System. Today, four out of every five Colombian pesos that IDEAM needs to sustain itself, depend on an annual search for resources outside the national budget.

Another concern is that, despite the enormous progress in information production and data quality, this is not always reflected in the actions of environmental authorities: “I think the next step for forest monitoring data, is to actually take it to decision making. I am not saying that they are necessarily used for Artemis-style controls or anything like that, but for management of what is really going on in the natural forest areas”.

He sees as one of the great challenges for the National Land Agency, with such a preponderant role in the framework of the Peace Agreement, not to ignore the fact that large areas of land in the Amazon have undergone major changes in terms of deforestation and transformation and, consequently, require restoration actions before thinking about their allocation. A similar challenge, in his opinion, would be faced by the Superintendence of Notaries and Registry when formalizing land. “They should consider the history of what happened in recent years, that is, from 2010 onwards, in terms of deforestation”.

For Iván Valencia, advisor to GGGI, a palpable need is a stronger involvement of the Presidency of the Republic, other ministries, the security forces, and the Regional Autonomous Corporations. “Corporations came in a little late in the formulation of the project and we should have involved them more”, he reflects.

He shares the concern about the financial sustainability of the program and the high dependence on international donors. “Today, as of 2022, one could say that the program has failed, because instead of reducing deforestation, it has increased. But that would be a simplistic view, because I am almost certain that, if this program had not been in place, deforestation would be much worse”, he says.

Julia Miranda, former director of National Parks for almost two decades, does not hesitate to point out that Visión Amazonía is the most ambitious project Colombia has ever had to work from the local point of view with farmers and indigenous people. She also emphasizes that it allowed the consolidation of a whole working group and the creation of new capacities, both in national institutions and in local organizations.

However, from a broad perspective, she believes that the program had two strategic weaknesses. On the one hand, it did not address the problem of farmer occupation within National Parks, where strong deforestation processes are observed. On the other hand, by concentrating almost all efforts on working with settlers and indigenous people,

“

Today, as of 2022, one could say that the program has failed, because instead of reducing deforestation, it has increased. But that would be a simplistic view, because I am almost certain that, if this program had not been in place, deforestation would be much worse.

”

Iván Valencia

the real mafias that hoard the land were lost sight of. “The occupation of the territory with cattle ranches or farms without any use to make territorial control, and even advance in issues of drug trafficking and illegal mining corridors, is pure mafia economy that will not pay attention to productive alternatives such as those offered by Visión Amazonía”, she says.

Luis Gilberto Murillo, former Minister of the Environment, is convinced that the urgency of the deforestation problem, its magnitude, and the implications for the country and the region, demand a stronger leadership from the Presidency of the Republic, as pointed out by other leaders of the sector.

The former vice-minister, Pablo Vieira, believes that “Visión Amazonía has been successful in demonstrating a model of changes in the territory, and this includes from the strengthening of monitoring and how security forces can act, to the resources that have been put in the territory for productive reconversion programs. These are all very important victories that demonstrate that the model works. Although clearly much more needs to be done”.

Rodrigo Botero, director of the Foundation for Conservation and Sustainable Development (Fundación para la Conservación y el Desarrollo Sostenible), which has focused its work in the Amazonia on monitoring the deforestation problem, sees several challenges for the near future. First, to leave behind the narrative that everything that happens in these Amazonian departments is generated by the guerrillas, drug trafficking and farmers labelled as ignorant. “That is a brutal narrative that has been with us all along, but reality is that the State has made perverse policies and investments that incentivize deforestation”.

Along with this necessary change in the narrative, Botero emphasizes three challenges: The problem of land legalization in the Amazonia, reordering public investment in the area, and exercising greater law enforcement through the police and judicial system.

Yezid Beltrán, leader of the Agro-environmental Pillar, is convinced that Visión Amazonía

has been successful, but it is still a “tiny effort compared to the enormous monster of deforestation. This cannot be solved with funds alone; I believe that here a much more decisive action by the State is needed”. But also, from the private sector. He believes that if supermarket chains continue to buy meat and milk from deforested areas, if they do not demand traceability of the origin of the meat from their suppliers, the problem will be perpetuated.

Marnix Becking, an ecologist and senior advisor to KFW’s Visión Amazonía, started out researching ecological dynamics in the páramos, but his interest in biodiversity pushed him down from the mountains and into the rainforest. In 2017, he joined the program. Almost five years later, he believes that the balance is positive, the clearest proof “is that donors are willing to invest more funds in Colombia”.

“There is an opinion at the collaborators level that the program does work. They know there are delays, but in general it is a positive perspective in the face of such a complex reality”, he notes. This is at the political level. Because among fellow academics, forestry experts, some of them original thinkers of the REDD Early Movers program, the initial aspirations with this type of initiative at the global level are not being fulfilled.

In some conversations and forums, he has been explicitly asked about the case of Colombia. Becking has tried to explain how complex it has been to influence areas where, despite the peace agreement, illegality and governance problems persist. “When I talk about this in crude terms, my colleagues tell me in crude terms too: So, Colombia is not ready”.

For Becking, the central issue in any reflection on Visión Amazonía is “governance in the Amazon”. With such weak autonomous corporations, mayors’ and governors’ offices, which are also weak, and many times affected by corruption, thinking about influencing deforestation in a more forceful way is still a difficult goal to achieve. “Progress is being made, but it is fragile. They are fragile because

A total of 39 families from the Asociación de Habitantes de la Comunidad Indígena de Laguna de Morocoto – HALAMO (Association of Residents of the Indigenous Community of Laguna de Morocoto) are part of the Productive Alliances program of the Ministry of Agriculture and Rural Development, co-financed by Visión Amazonía REM Program. The Curripaco people are engaging in sustainable use of the açai palm.

Photo: Wilmar Mogollón



se there are communities that have distrusted governments for decades”, he notes.

Finally, he believes that, going forward and following the recommendation of some consultants, Visión Amazonía should turn a little more towards the idea of strengthening a forest economy and return to the idea that so many have repeated for decades: “If the forest has no value, if the agricultural economy is more powerful than the forest, the whole forest will be lost”.

With the entry of the new Colombian government in August 2022, both President Gustavo Petro and the Minister of the Environment and Sustainable Development, Susana Muhamad, have expressed that reducing deforestation is a priority. One of the first changes in the strategy they have suggested, is related to a lesser emphasis on command-and-control actions, to work hand in hand with the communities that inhabit these areas, as data show that deforestation under that approach increased by about 10% in 2020 and 2021 over the figure for the previous period. A trend that was also observed in the first quarter of 2022.

To reverse these numbers, not only in the Amazon, but also in the rest of the country, the government has proposed focusing actions, prioritizing areas, and coordinating national and international efforts. Based on the information provided by the monitoring of the forest area and deforestation generated by IDEAM, they have proposed to work on a containment plan in 22 areas identified within the active nuclei of deforestation, using and scaling up the tools developed by Visión Amazonía program, which has achieved 295,563 hectares under conservation

agreements over these six years, benefiting 11,630 farming families, and covering 70% of the indigenous territories.

This containment plan, together with the communities in the selected areas, will address 50% of the region’s deforestation. The plan aims to convert the current active deforestation nuclei into Sustainable Forest Development Nuclei through lessons learned in forest management, forest management of timber and non-timber products, restoration and management of secondary forests, payment for environmental services, livestock reconversion, promotion of nature tourism, establishment and strengthening of indigenous reserves and protected areas, among other actions.

In 2023, no less than COP 100 billion will be allocated to finance the plan against deforestation, but the goal is to increase this figure considerably, by articulating national funds and new funds from international partners and allies. The resources announced for a second phase of the REM II Visión Amazonía program from Germany and Norway and, most recently, the United Kingdom, are decisive steps in the right direction and strengthen our goal of reducing deforestation with this alliance, key to a better future for the humanity.

“

If the forest has no value, if the agricultural economy is more powerful than the forest, the whole forest will be lost

”

Marnix Becking

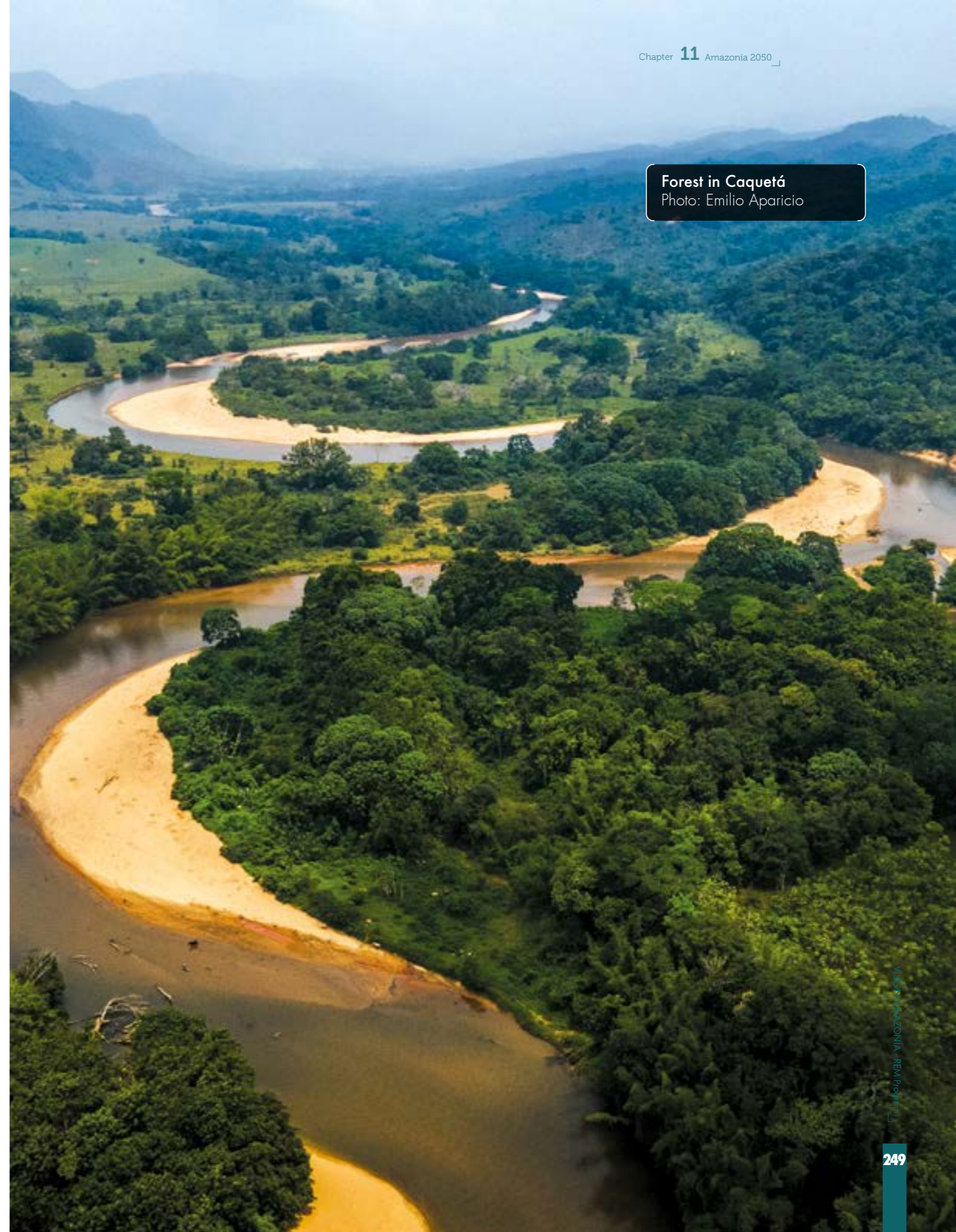
“

In the morning, Lamuchí asked her aunt where she could get water for bathing. The aunt replied that she collected water (juni) at night, gathering it from the leaves of the trees in the bush and that it was a very hard task. Lamuchí told her brothers that there was a tree from which the aunt drew water, and they began to look for it. When they found it, they told the aunt that they were going to knock it down. She told them it was too dangerous...

(Mito Yukuna)

”

Forest in Caquetá
Photo: Emilio Aparicio



Where should we go as a nation?

Deforestation, being a complex phenomenon, requires joint work, resources, institutionalism, political decision and vision.

We have made progress in the aforementioned components and deforestation has been slowly decreasing since 2016, but it is not enough, we must accelerate the pace.

The government has improved information to better understand and dimension deforestation, has tested alternatives and thus be able to prepare the country to face this national problem. Today we have a better understanding of the magnitude of the problem, a sophisticated understanding because it is understood that deforestation can only be avoided by building an economic model where the forest and the communities are the centre of the model.

The Visión Amazonía program is no longer a cooperation initiative but a national policy in the search for a forestry economic model, where the focus is on forest conservation, generating wellbeing for the ethnic and rural communities that inhabit it. This has been inserted in the national development plan 2022-2026 "Colombia, world power of life".

In this plan, Colombia proposes to move from active deforestation hotspots to sustainable forest and biodiversity development centres based on timber and non-timber forest products, payments for conservation, restoration and reforestation, the development of nature tourism, the incursion and development of carbon markets, fish farming and, of course, the conversion of existing traditional production systems such as livestock, cocoa, rubber, and coffee. In this transition it will have to work on, among other issues, access to land, the strengthening, protection and expansion of indigenous territories and national and regional natu-

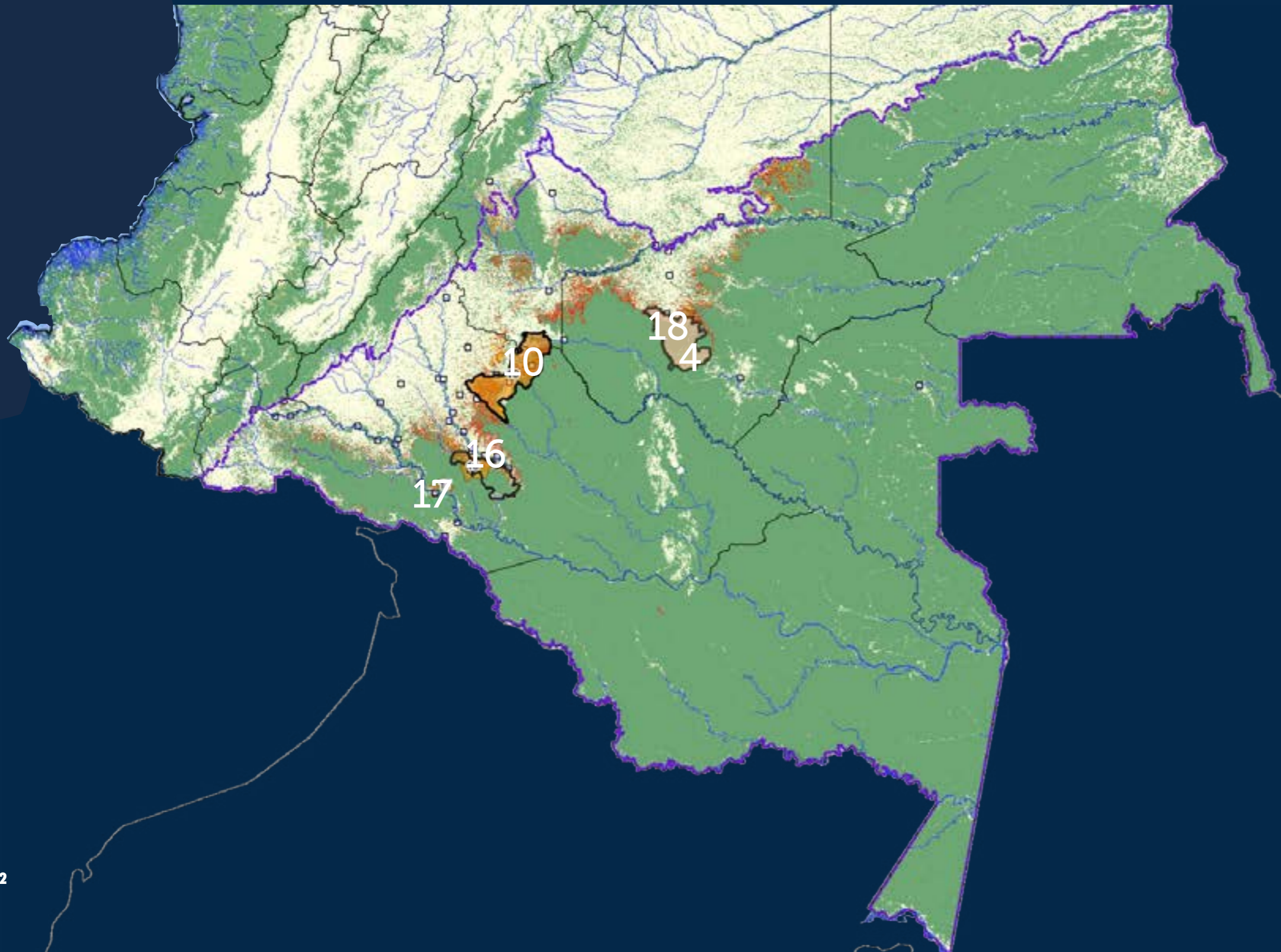
ral parks, the institutional strengthening of the environmental authority, the development and consolidation of the forest and carbon monitoring system, preventing land grabbing, extensive cattle ranching, illicit crops and illegal armed groups in the coming years.

The government has not only incorporated the lessons learned by Visión Amazonía REM program as part of its new policy for the Amazon but wants to extend and scale this experience to the whole country and with new and fresh resources. Thus, it included in its analysis the active deforestation hotspots as a guide for action developed in the program and will work in 28 active deforestation hotspots throughout the country, 22 of which are in the Amazon, to achieve the transition from active deforestation hotspots to forest and biodiversity development hotspots. For this purpose, it has promised unprecedented annual resources in the Amazon for the next 20 years. In the short term it is expected that the country will be able to reduce deforestation in the Amazon by 50% by 2026 and in the medium term to advance in the restoration and control of deforestation to reach zero net deforestation by 2030.

For the above and due to the good management and achievements obtained by Visión Amazonía REM program, Germany and Norway approved a second phase of cooperation to support 6 of the 22 areas set by the government in the Amazon. There are also long-term plans to continue the cooperation so that Colombia can count on international support in this national but global effort.

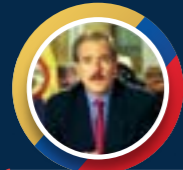
It is foreseeable that the deforestation rate will continue to oscillate up and down in the coming years as all these efforts bear fruit. The key will be to consolidate a downward trend, which is achieved by maintaining and concentrating efforts and energies as a country. Visión Amazonía will be there to achieve this purpose.

Portfolio of interventions Visión Amazonía REM
II programme



- LEYENDA
- 18** NDFyB* Los Puertos
 - 4** NDFyB* Agua Bonita
 - 10** NDFyB* Aguas Claras
 - 16** NDFyB* Nueva Ilusión
 - 17** NDFyB* Orotuyo
 -  Population centres

*Forestry and Biodiversity Development Nucleus



ANDRÉS PASTRANA
1998 - 2002



ÁLVARO URIBE
2002 - 2010



JUAN MANUEL SANTOS
2010 - 2018



IVÁN DUQUE MARQUEZ
2018 - 2022

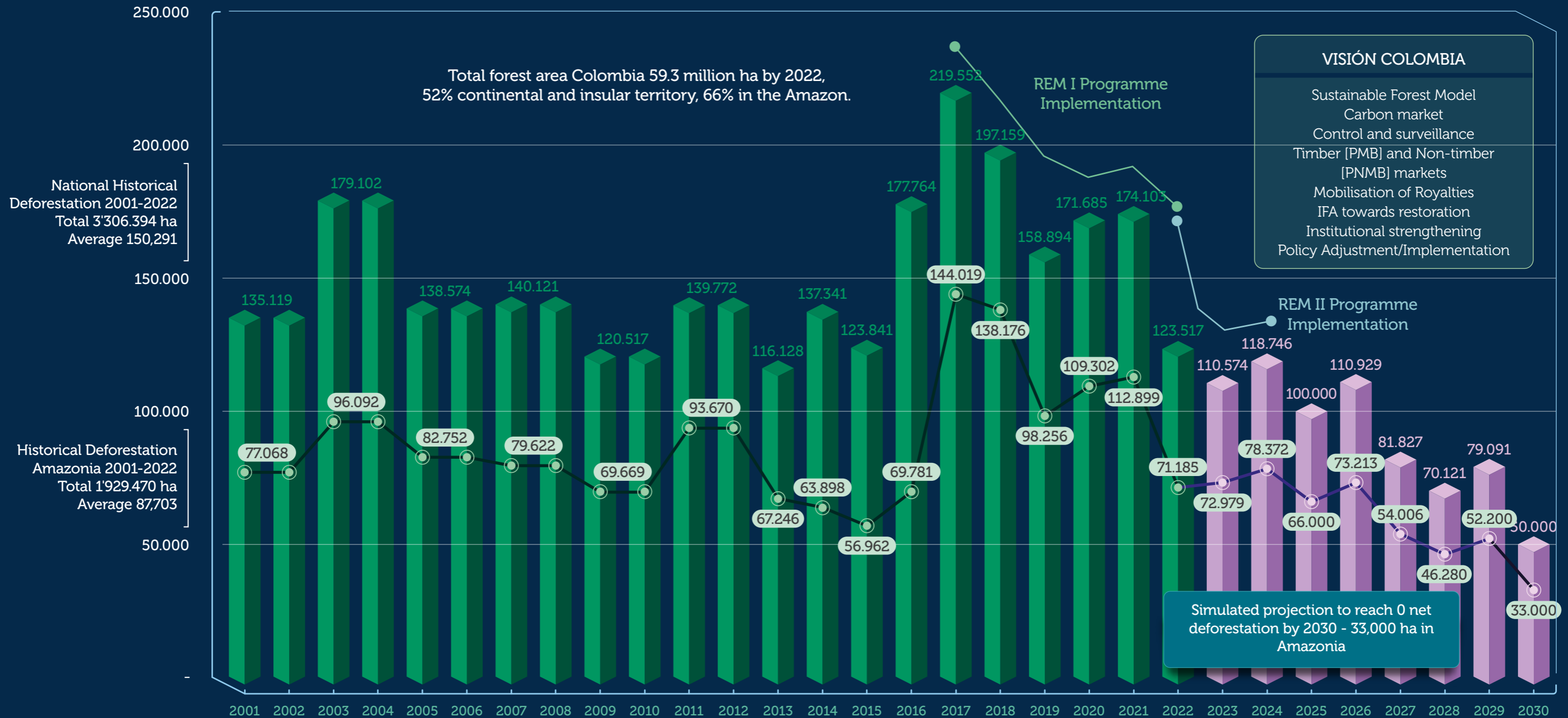


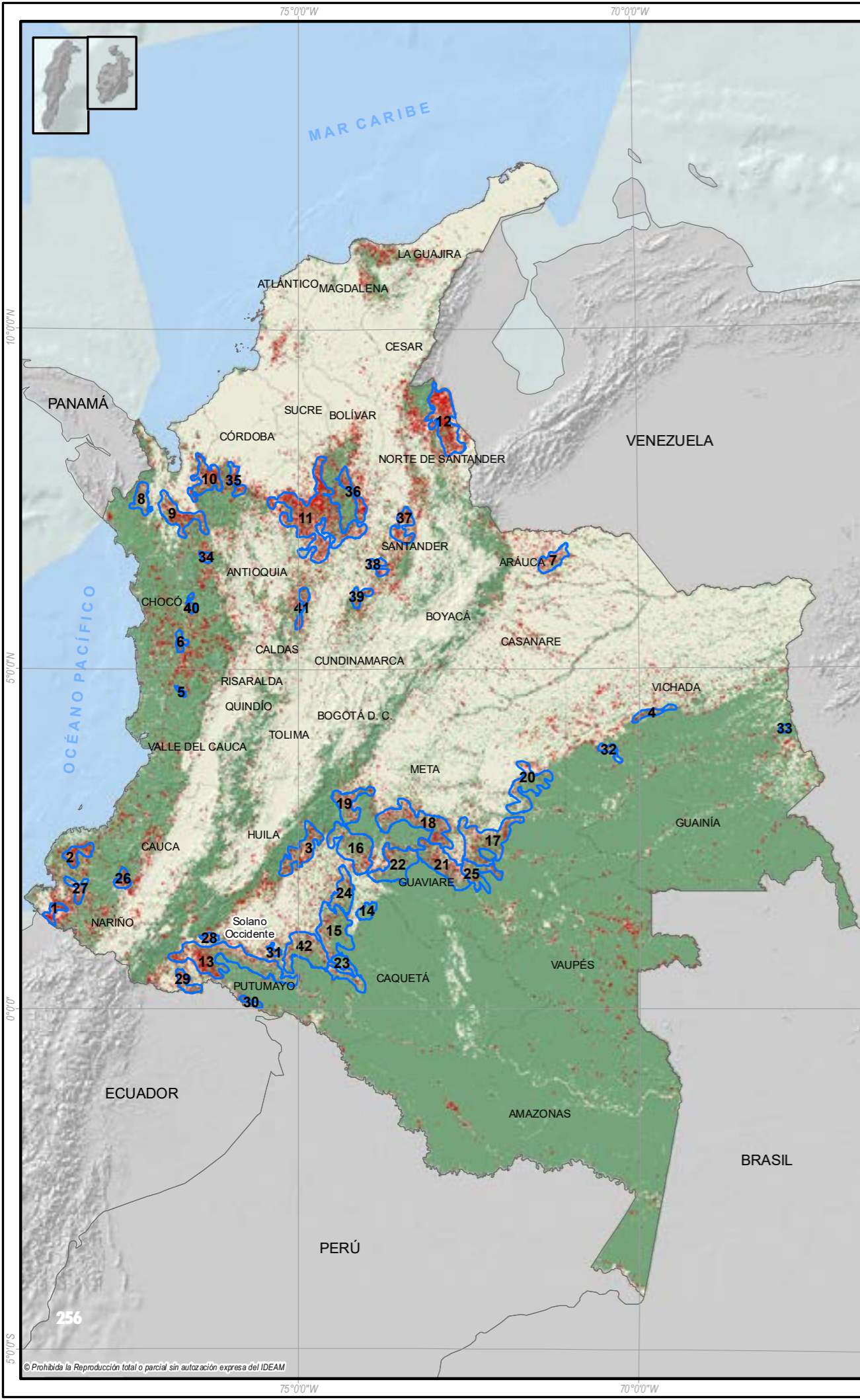
GUSTAVO PETRO
2022 - 2026



PRESIDENTE
2026 - 2030

Total forest area Colombia 59.3 million ha by 2022,
52% continental and insular territory, 66% in the Amazon.





REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Menores a 2 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SBYC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

■ Núcleos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanquianga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catumbó
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maspipán
21	Chuapal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asís
30	Puerto Leguizamó
31	La Esperanza Solano
32	Puerto Príncipe
33	Mataven
34	Frontino
35	Montelíbano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucurí
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

■ Polígonos deforestación
Menores a 2 Ha

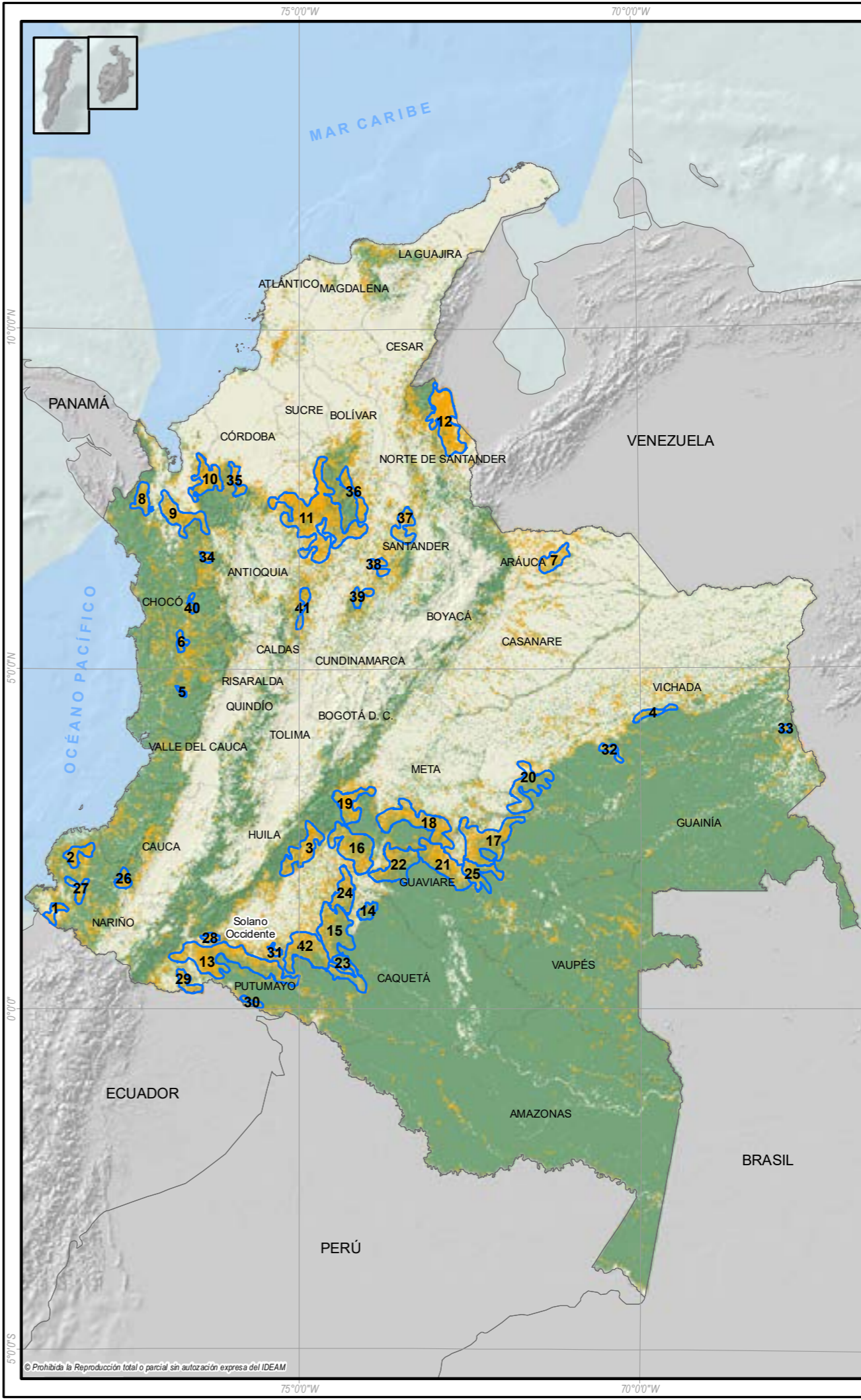
Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero

Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Entre 2 y 5 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SBYC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

■ Núcleos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanquianga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catumbó
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maspipán
21	Chuapal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asís
30	Puerto Leguizamó
31	La Esperanza Solano
32	Puerto Príncipe
33	Mataven
34	Frontino
35	Montelíbano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucurí
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

■ Polígonos deforestación
Entre 2 y 5 Ha

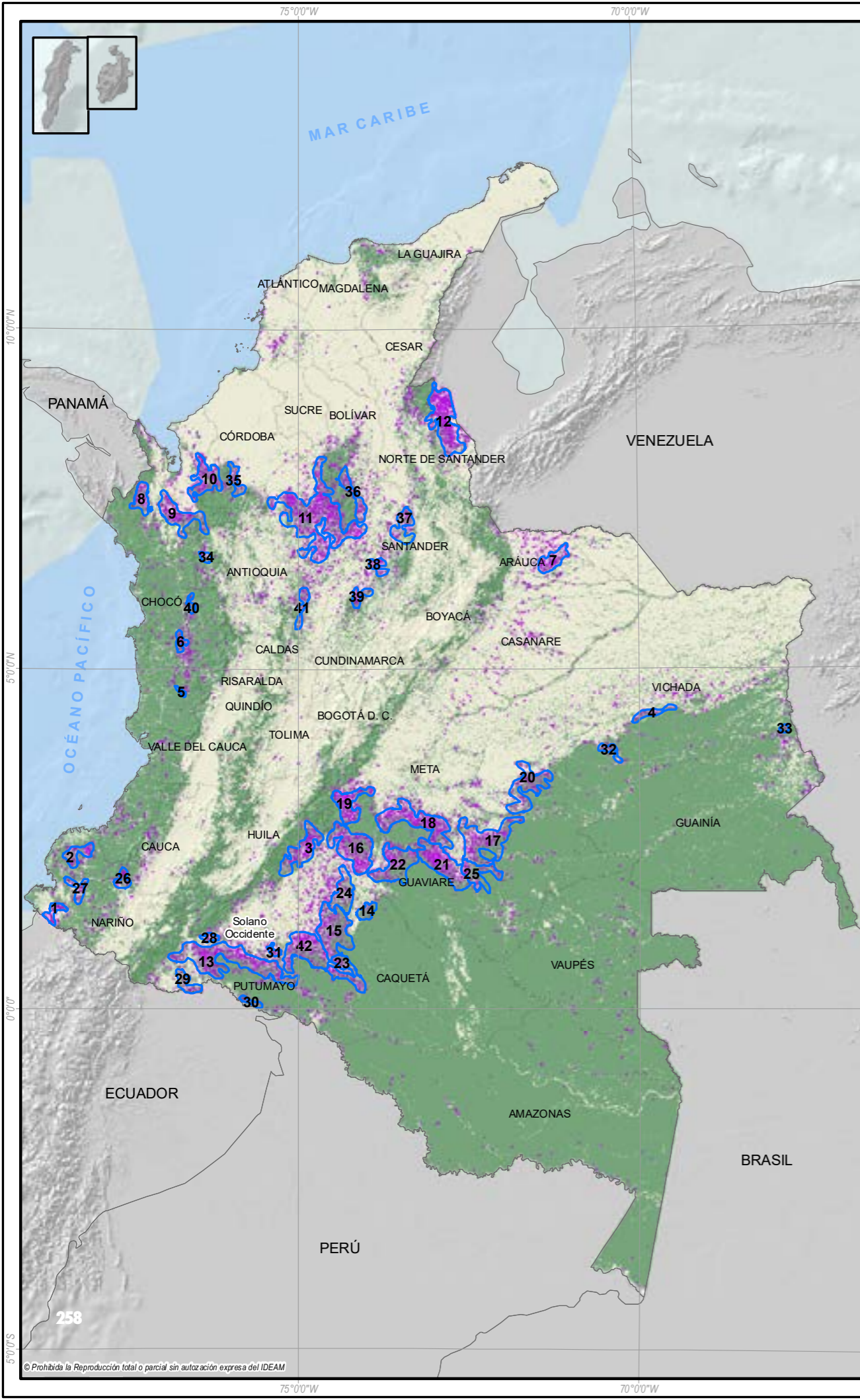
Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero

Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Entre 5 y 10 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SMBYC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

■ Núcleos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maipiripan
21	Chupal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamó
31	La Esperanza Solano
32	Puerto Príncipe
33	Mataven
34	Frontino
35	Montelíbano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

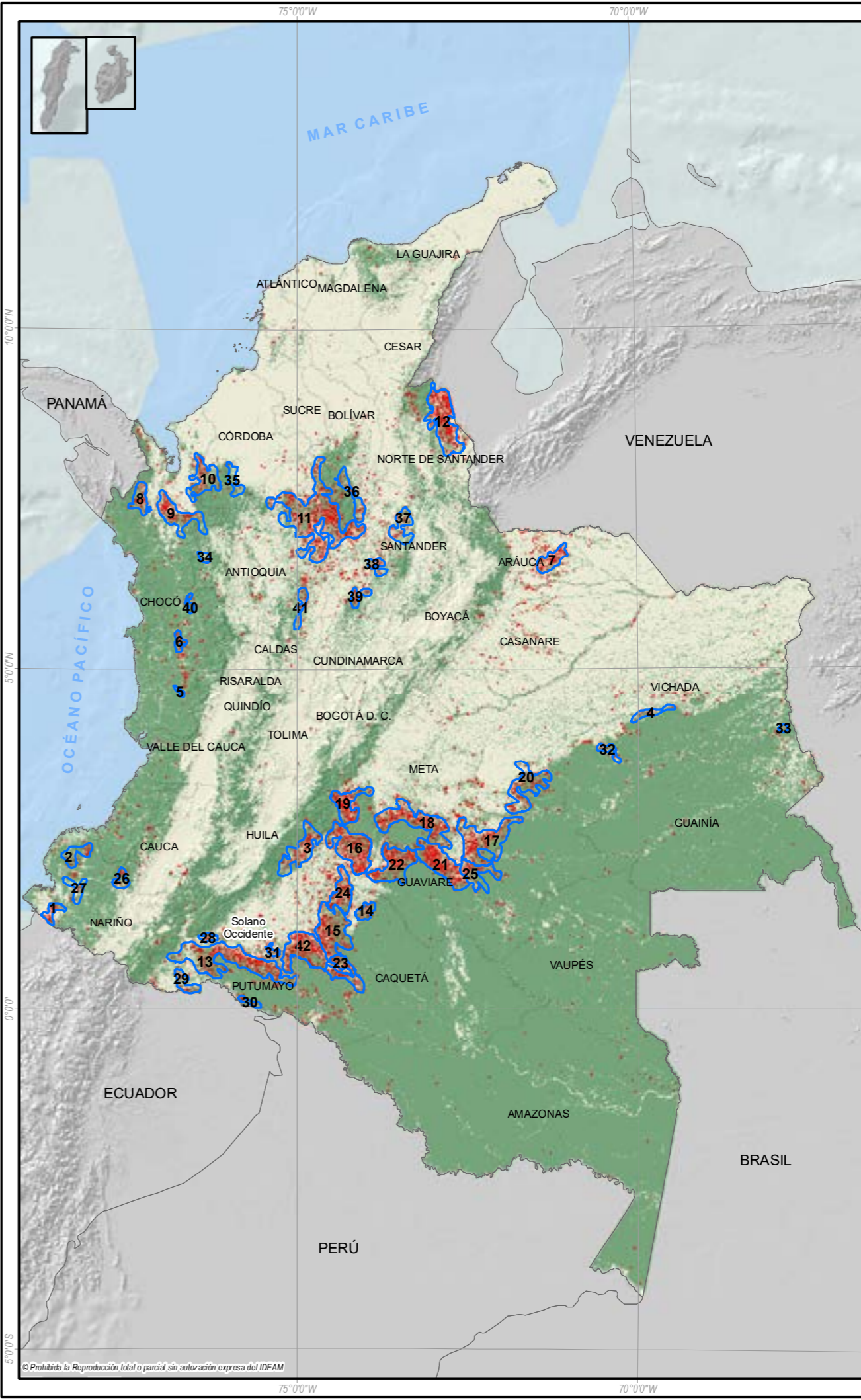
■ Polígonos deforestación
Entre 5 y 10 Ha

Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS,
Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Entre 10 y 20 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SMBYC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

■ Núcleos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maipiripan
21	Chupal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamó
31	La Esperanza Solano
32	Puerto Príncipe
33	Mataven
34	Frontino
35	Montelíbano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

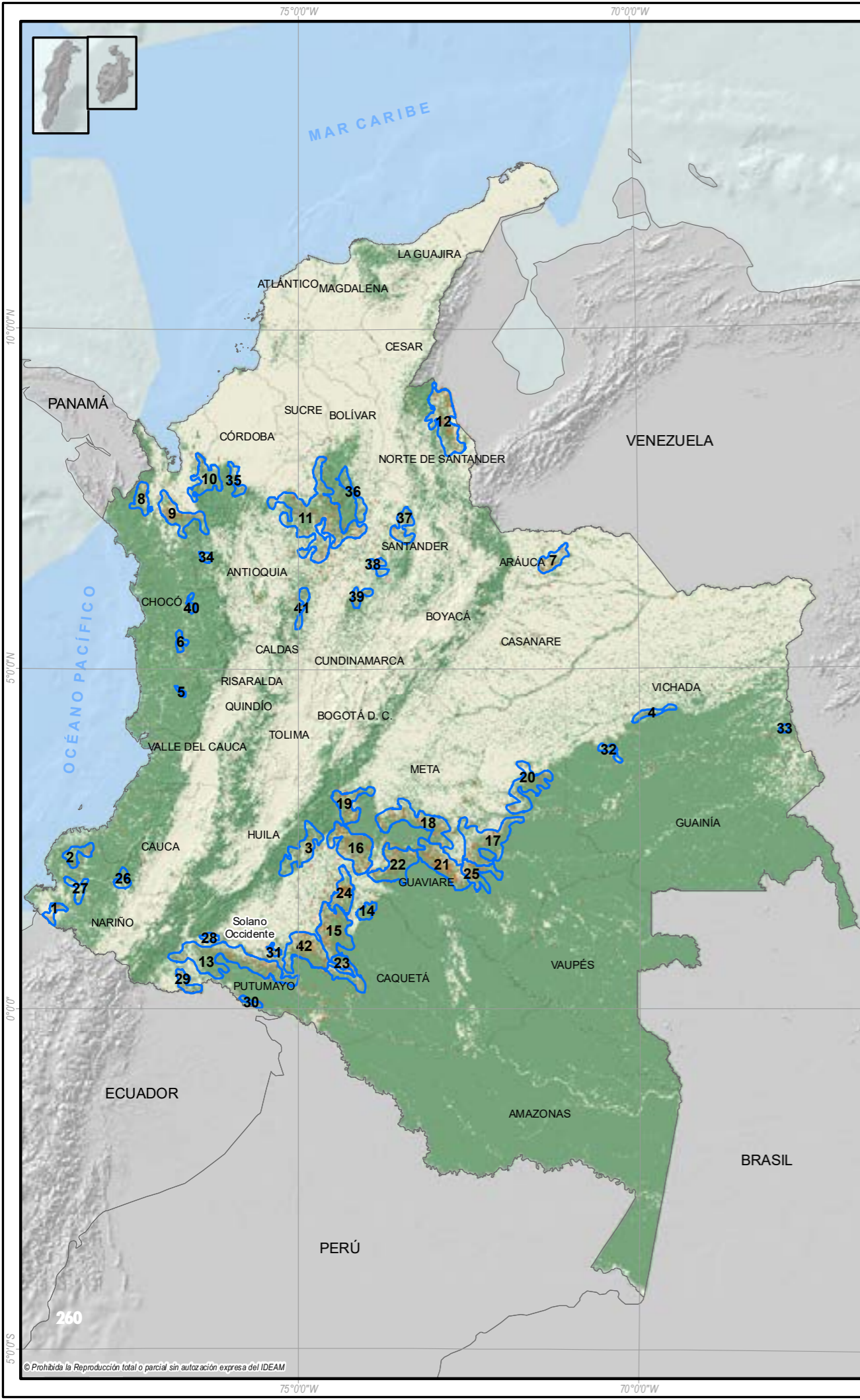
■ Polígonos deforestación
Entre 10 y 20 Ha

Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS,
Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Entre 20 y 30 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SSMBC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

Polígonos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maipiripan
21	Chupal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamo
31	La Esperanza Solano
32	Puerto Principe
33	Mataven
34	Frontino
35	Montelibano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

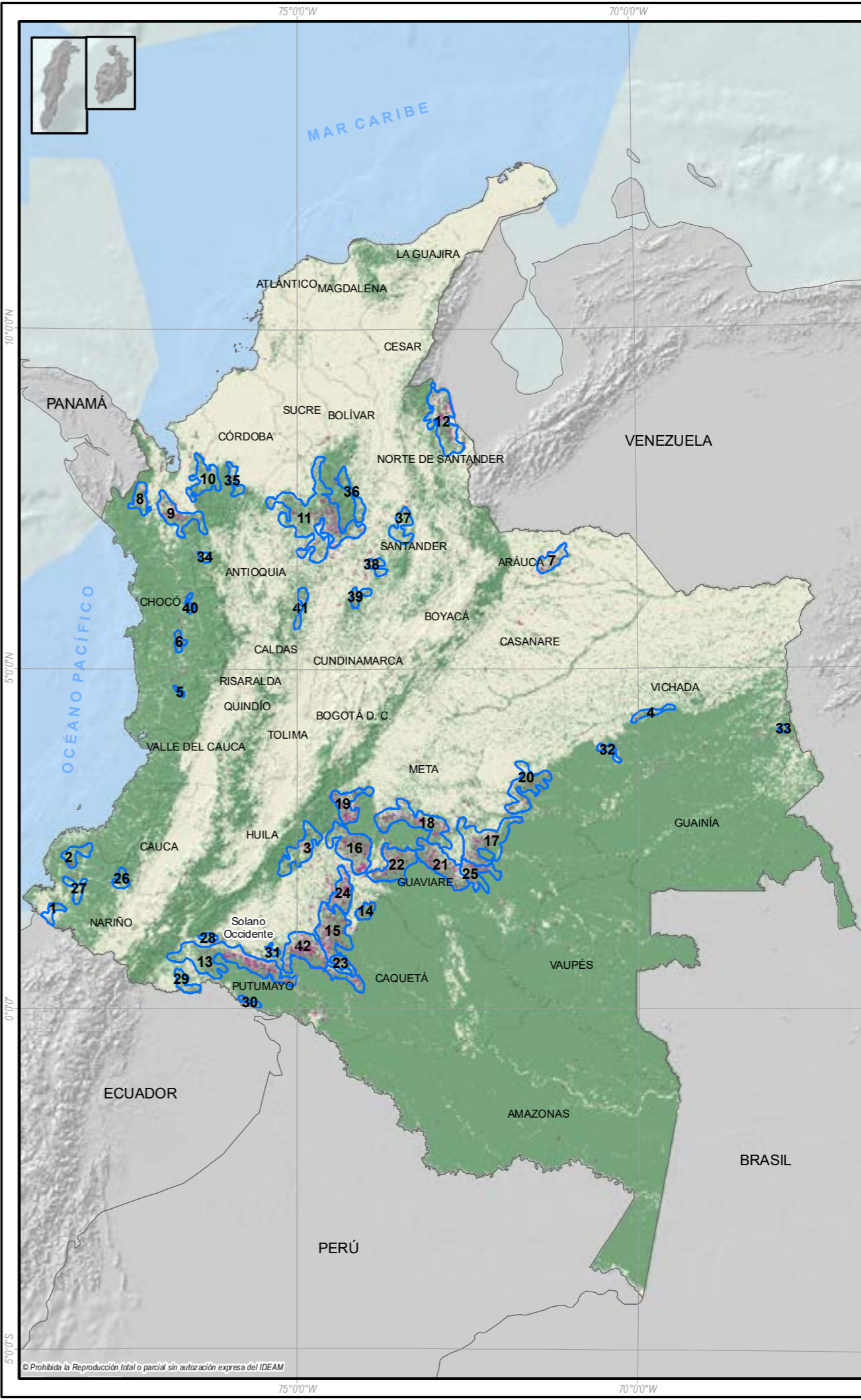
Polígonos deforestación
Entre 20 y 30 Ha

Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Entre 30 y 50 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SSMBC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

Polígonos deforestación activa
2017-2019

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Rio Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuyá
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maipiripan
21	Chupal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacoa-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamo
31	La Esperanza Solano
32	Puerto Principe
33	Mataven
34	Frontino
35	Montelibano- Libertador - Tierra Alta
36	Sur de Bolívar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

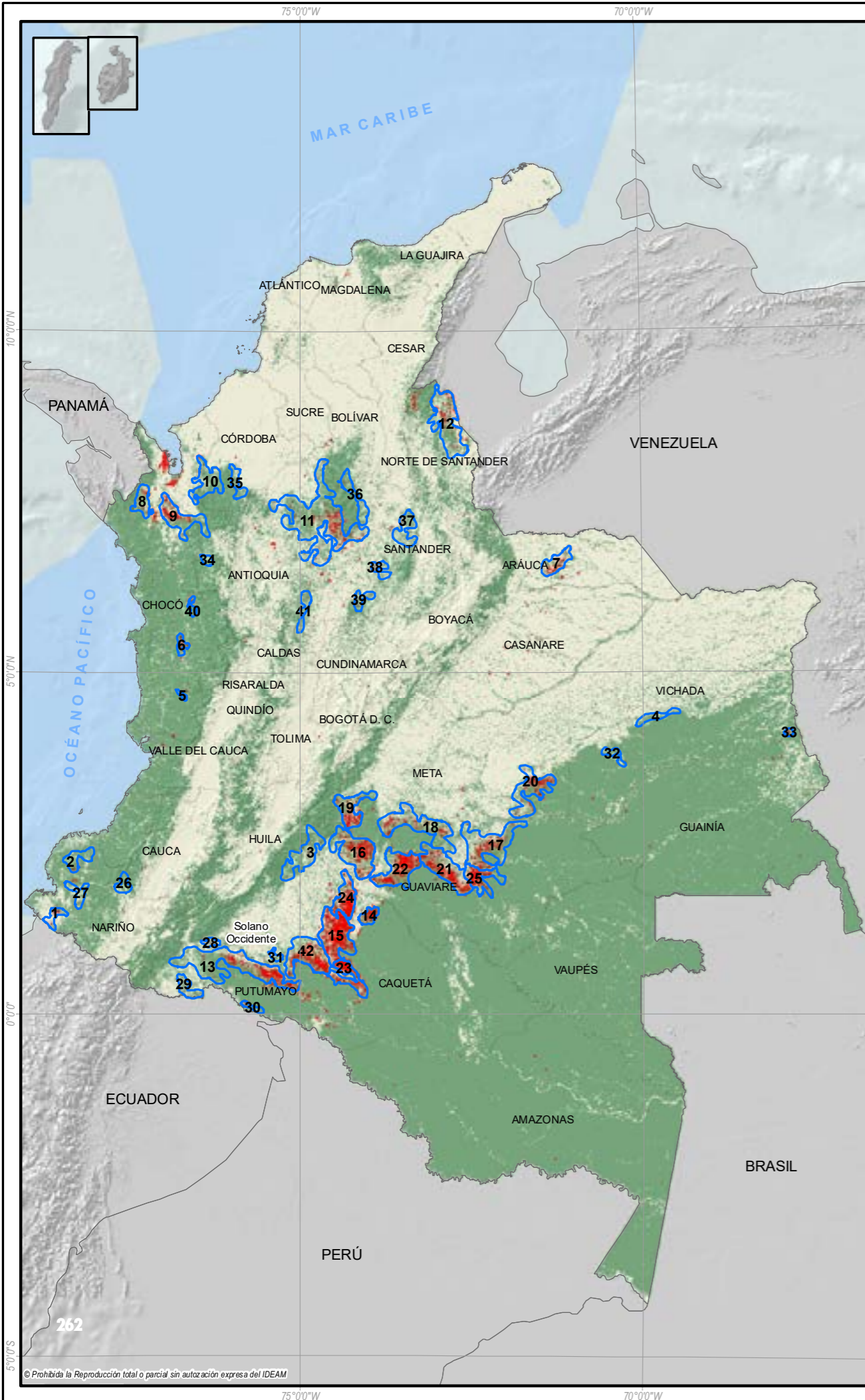
Polígonos deforestación
Entre 30 y 50 Ha

Escala
1:8.500.000

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Polígonos Deforestación
Mayores a 50 Ha
2014 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SMCBC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

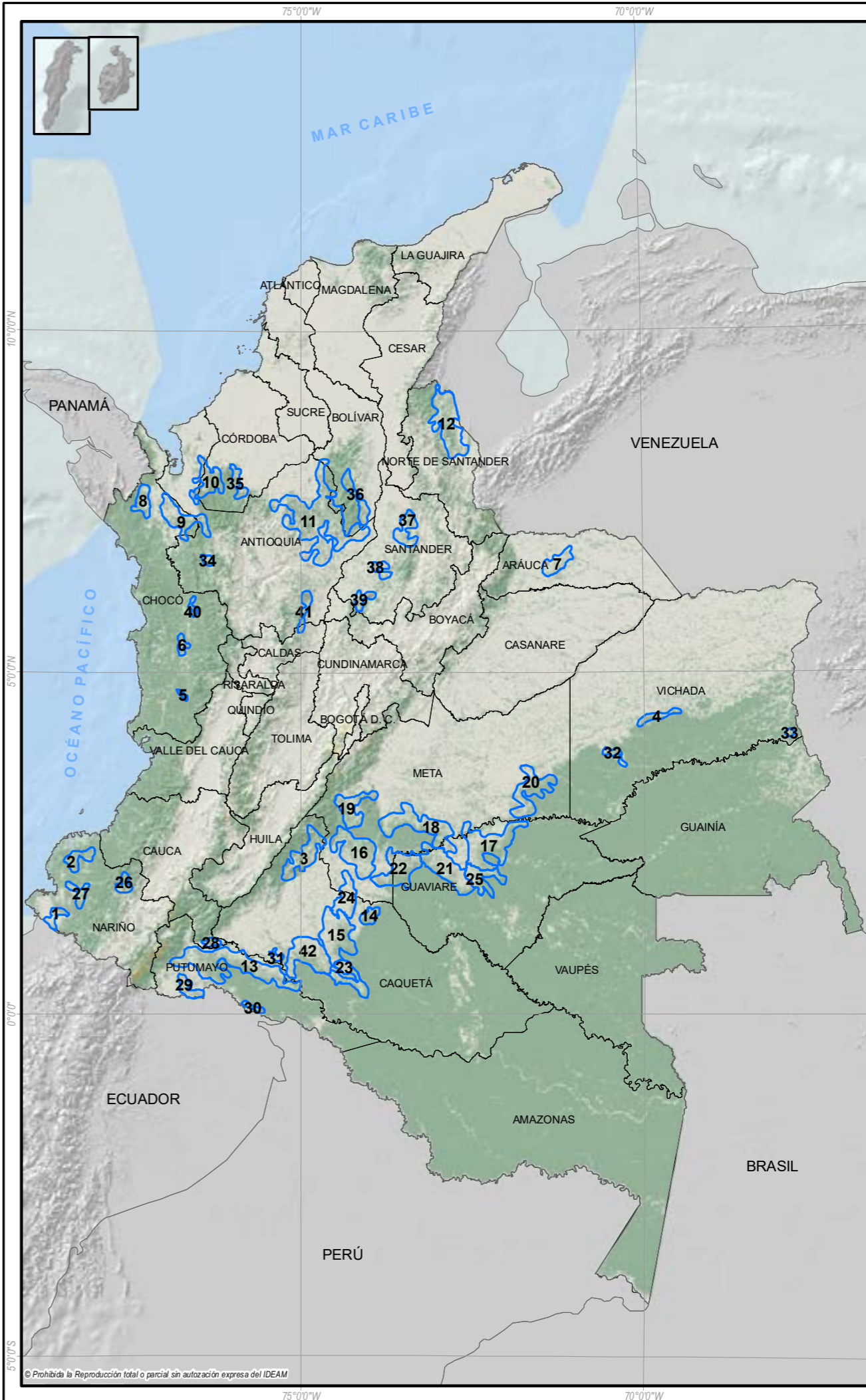
Polígonos deforestación
Mayores a 50 Ha

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Río Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuya
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maspiripan
21	Chuspal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacos-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamo
31	La Esperanza Solano
32	Puerto Principe
33	Mataven
34	Frontino
35	Montelibano - Libertador - Tierra Alta
36	Sur de Bolivar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo



REPÚBLICA DE COLOMBIA
INSTITUTO DE HIDROLOGÍA,
METEOROLOGÍA Y ESTUDIOS
AMBIENTALES

**Núcleos Activos Deforestación
Año 2016 - 2019**

Sistema de Monitoreo de Bosques y Carbono
para Colombia - SMCBC

Subdirección de Ecosistemas e
Información Ambiental - SEIA

Año 2020

Leyenda

Núcleos deforestación activa
2016-2019

Id	Núcleo
1	Tumaco
2	Sanguilanga
3	San Vicente - Puerto Rico
4	Cumaribo
5	Sipi
6	Río Quito
7	Sarare
8	Riosucio
9	Carmen del Darien
10	Paramillo
11	San Lucas
12	Catatumbo
13	Puerto Guzman
14	El Camuya
15	Yari Sur
16	PNN Tinigua
17	Nukak
18	Macarena Norte
19	La Julia-El Placer
20	Maspiripan
21	Chuspal Itilla
22	Marginal de la Selva
23	Bajo Caguan
24	Yari Norte
25	Calamar-Miraflores
26	El Charco - Rosario
27	Barbacos-Magui
28	Piamonte
29	Puerto Asis
30	Puerto Leguizamo
31	La Esperanza Solano
32	Puerto Principe
33	Mataven
34	Frontino
35	Montelibano - Libertador - Tierra Alta
36	Sur de Bolivar - San Lucas
37	San Vicente del Chucuri
38	Cimitarra
39	Serranía de Quinchas
40	Medio Atrato
41	San Luis Argelia
42	Suncillas

Información de Referencia

Sistema de Referencia: MAGNA - SIRGAS
Zona: BOGOTÁ
Elipsoide: GSR80
Origen: 74°04'39.0285" Longitud W
de Coordenadas: 04°35'46.3215" Latitud N
Valores arbitrarios de 1.000.000 metros Norte
Coordenadas: 1.000.000 metros Este
Fuente: IDEAM, MADS, Patrimonio Natural, F. Moore.
Cartografía Base: IGAC, 2010.
Tipo de imágenes: LANDSAT

Salida Gráfica: Omar Sotelo
Cristhian Forero
Revisó: Edersson Cabrera
Gustavo Galindo

262



In Cartagena del Chairá, Susana Muhamad, Colombia's Minister of Environment and Sustainable Development, met with the rural leaders who are part of the Visión Amazonía REM Program to hold a social dialogue, which ended with the signing of the first community agreement to protect the forests.

Photo: Janeth Bougard



Chapter

12

Financial Mechanism

Patrimonio Natural Fondo para la Biodiversidad
y Áreas Protegidas

VISIÓN AMAZONÍA
REM Program



Patrimonio Natural Fondo para la Biodiversidad y las Áreas Protegidas team, FPN team, financial mechanism of Vision Amazonía REM Program.

Photo: Fondo Patrimonio Natural

Patrimonio Fund: The \$100 million manager

Understanding the role of Patrimonio Natural in Visión Amazonía requires going back to 1993 when Law 99 was passed, the same law that created the National Environmental System (SINAP). At that time, two regional funds were created to support conservation efforts: one for the Amazon and the other for the Sierra Nevada de Santa Marta. But as happens with many regulations in Colombia, these funds were never established and everything remained on paper. The idea of having a fund to channel resources and facilitate environmental activities was an experience that many countries were experimenting at the time.

12 years passed until in 2005 National Parks and other SINAP partners (corporations, research institutes and civil society organizations), with the endorsement of the Ministry of Environment, decided on their own to make the old dream come true and created the fund for biodiversity and protected areas, later called Patrimonio Natural.

Since then, Patrimonio has managed at least 100 projects, ranging from US\$25 million to US\$104 million, for a cumulative total of more than US\$300 million approved for administration by the Fund. Among the most relevant are: Mosaicos de Conservación [Conservation Mosaics], Incentivos a la Conservación [Conservation Incentives], Paisajes y Paisajes Caribe [Landscapes and Caribbean Landscapes], Conservación y Gobernanza [Conservation and Governance], Corazón Amazonía [Amazon Heart], Visión Amazonía.

When the discussion on the administration of the Visión Amazonía funds began, one of the options contemplated was to create a new national fund specialized in the Amazon. What had not been done in two decades was to be formalized in a few months. Other more sensible voices opted to evaluate the two existing environmental funds (Fondo Acción and Fondo Patrimonio Natural). At the end of the process, Patrimonio Natural was selected and signed a separate agreement with the KfW bank and the Ministry of Environment and, in an ancillary way, a contract for the provision of services with the same ministry

The first challenge: The Amazonian territory

The Colombian Amazon has a series of specific characteristics that make it one of the most complex regions in which to implement a program of this magnitude. Operating in the Amazon means having the capacity to cover an area of 48 million hectares, that is, 41.8% of the national continental territory, which is equivalent to twice the size of the United Kingdom.

Además In addition to the immensity of the area of operations, it is a region with serious infrastructure problems. This implies, both for the population and the officials involved, to resort to various means of transportation: airplane, car, boat, buses, motorcycles and even horses in some occasions. Although the region has 25 airstrips, most of them are located in the foothills. Commercial flights only reach the capitals of the departments, and only two airlines have daily flights to these destinations. The rest fly between two and three times a week.

These two aspects mean that the logistics for investing Visión Amazonía resources require specific procedures, flexible suppliers in terms of delivery conditions and a network of local actors to mobilize the elements that the program finances.

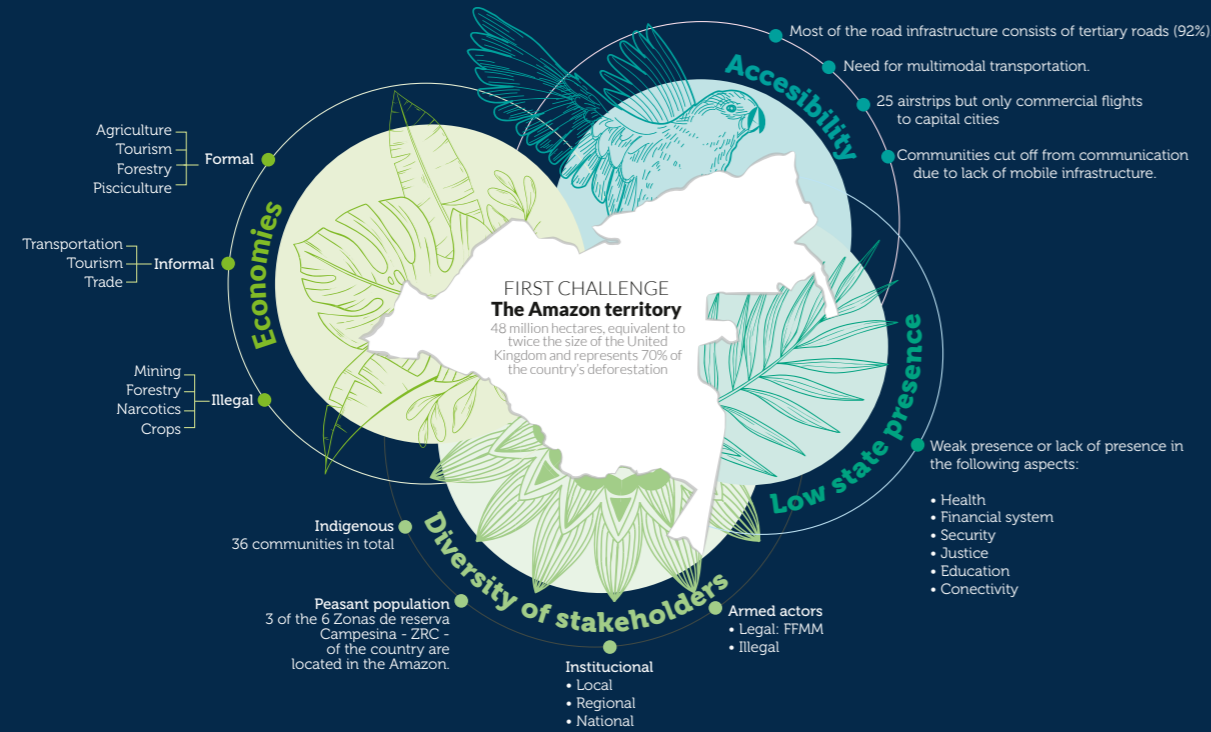
Mobilization is just one of the complexities of managing a program. The overlapping of social groups in the territories, the region's economy that includes formal, informal and illegal economies, the presence of illegal armed actors and a low state presence in terms of infrastructure and guarantee of services such as health, education, transportation, access to justice, among others, means that all these conditions must be evaluated in order to adequately execute the program with the conditions required for the use of international cooperation.

The program therefore reached an extensive territory, with multiple deficiencies, interlocutions and interactions mediated by the armed conflict, unsatisfied basic needs and social fabrics yet to be strengthened.



Through the Visión Amazonía REM Program, rural communities have been trained and provided with equipment and clothing to act as first responders in forest fires, with the support of Volunteer Firefighters.

Photo: Héctor Suricata



An example best illustrates this challenge. In order to contract a gasoline service, Patrimonio Natural was required to open a competitive process. However, upon arriving at a location in the middle of the Amazon rainforest such as La Pedrera, only one supplier was identified. So, it was not possible to guarantee this competition, generating an administrative short circuit that required additional permits, explanations and verification by bank officials. All this work was done just to pay for the gasoline needed to reach one of the 36 indigenous communities in the region.

and organizations. It was necessary to make around 523 modifications (supplementary agreements) to these initial agreements. This leaves a ratio of 1:3. A sign of the enormous number of unforeseen situations involved in executing projects in this region and with this type of peasant and indigenous organizations and weak governmental entities.

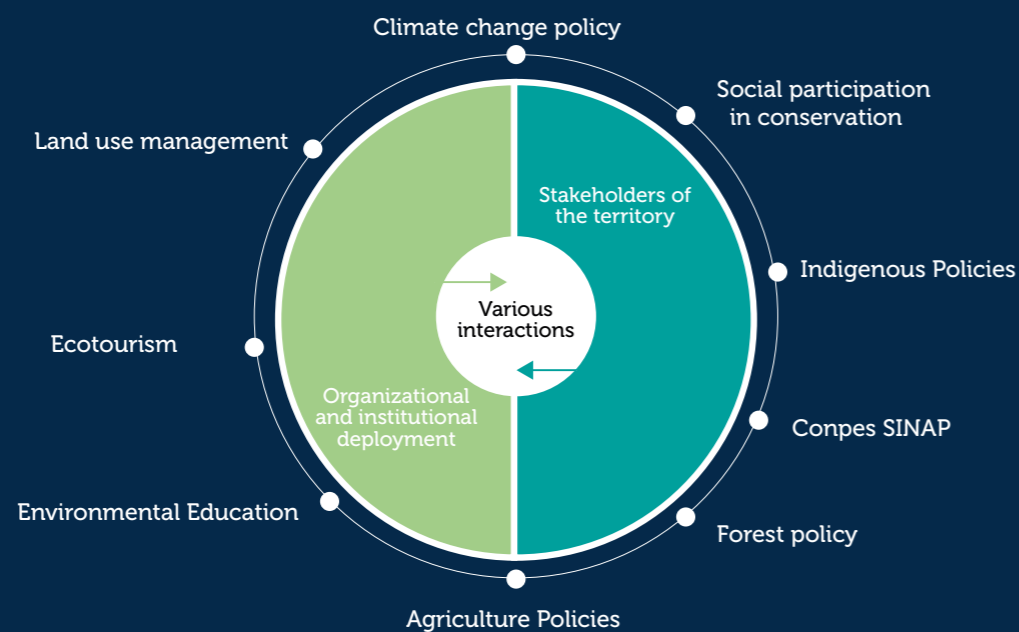
Adjusting administrative processes designed for other social and economic dynamics has been one of the main challenges for Patrimonio Natural. Throughout the project, 181 agreements were signed with different entities

Something similar was observed in contracts with individuals. A total of 748 contracts were signed, to which 680 additional contracts were signed (91%). Of these contracts, 57% (544) are for staff, which implies the administration of additional staff for the partner entities and taking charge of the ARL (labour risks), verification of payroll, etc.

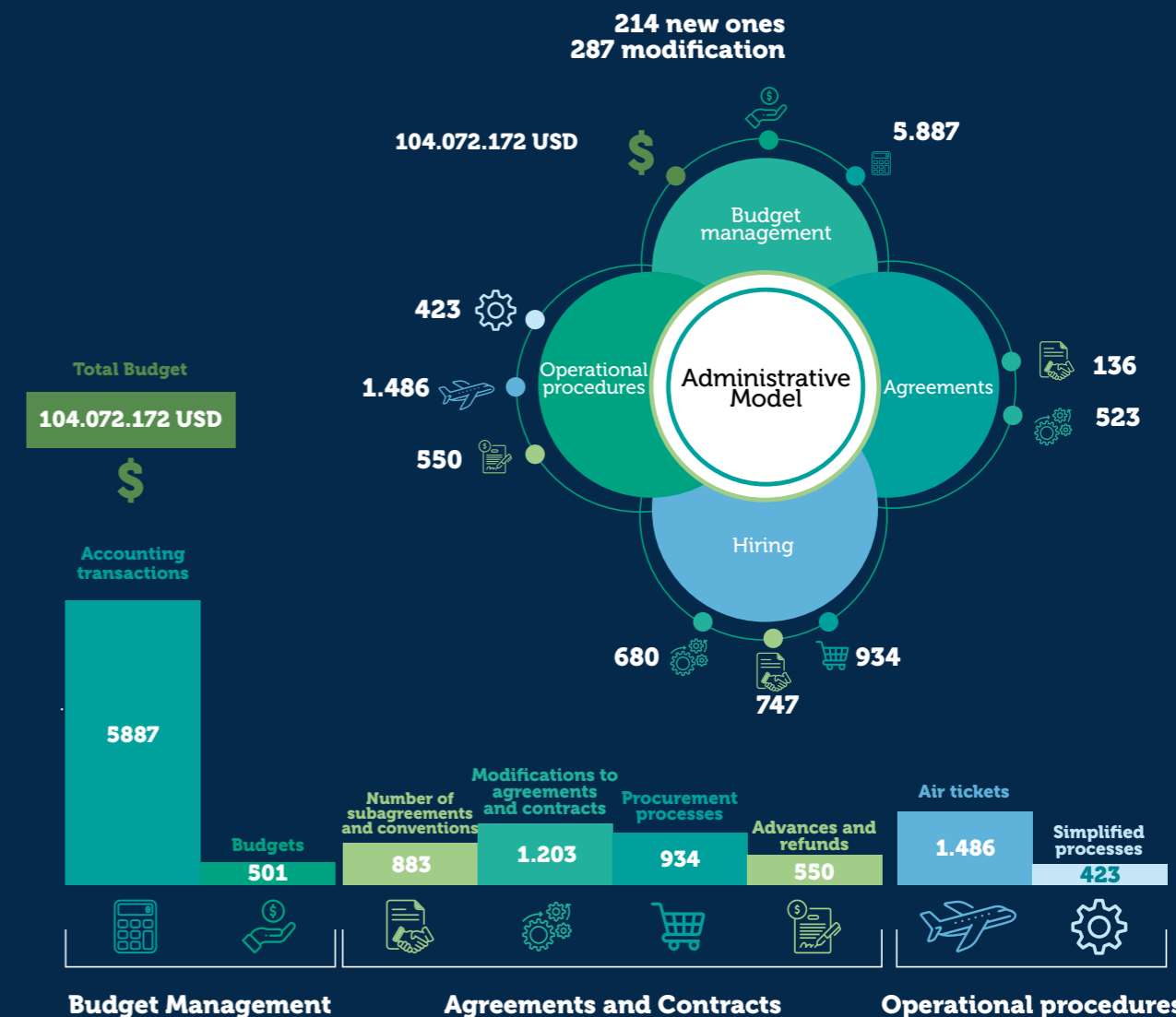
The second challenge: Managing in the jungle

Without having a deep clearness on this Amazon context, a program structure was proposed under the rules and guidelines for making purchases from an international bank such as KFW Bank. In other words: from the

beginning of the Visión Amazonía process, an attempt is being made to invest in one of the most remote and unequal regions of Colombia with contracting rules designed for other contexts.



Source: Fondo Patrimonio Natural



The third challenge: The working group

Visión Amazonía has been a learning-by-doing process. When the program was structured, no one was entirely clear about the administrative resources needed. In the program's initial documents, it was proposed to have only one general coordinator and 14 focal points (technical-administrative representatives) in the Amazonian departments. Nine additional people were planned for the financial mechanism.

Reality proved that these estimates were naïve. At present, the EBU team has 36 people and the financial mechanism has 27 people.

We now know that this is approximately the size of the coordination and administration required for a program of this size. In addition, there are 544 contractors for the region (at a total cost of \$21,000 million) and staff associated with 41 consultancies with specialized companies (at a total cost of \$23,000 million). Patrimonio Natural had to create 929 files for the different projects executed and review more than 2,300 reports. This staff interacted with or supported 110 official entities and organizations in the region.

Organizational and institutional deployment — Stakeholders in the field



Source: Fondo Patrimonio Natural

Fourth challenge: Plannig

Working together with public, private and community institutions and organizations in a region like the Amazon requires a very precise evaluation of their capacity to plan, manage and administer resources. In the case of Visión Amazonía, due to the volume of resources available, this meant establishing relationships with more than 100 organizations. All with different capacities.

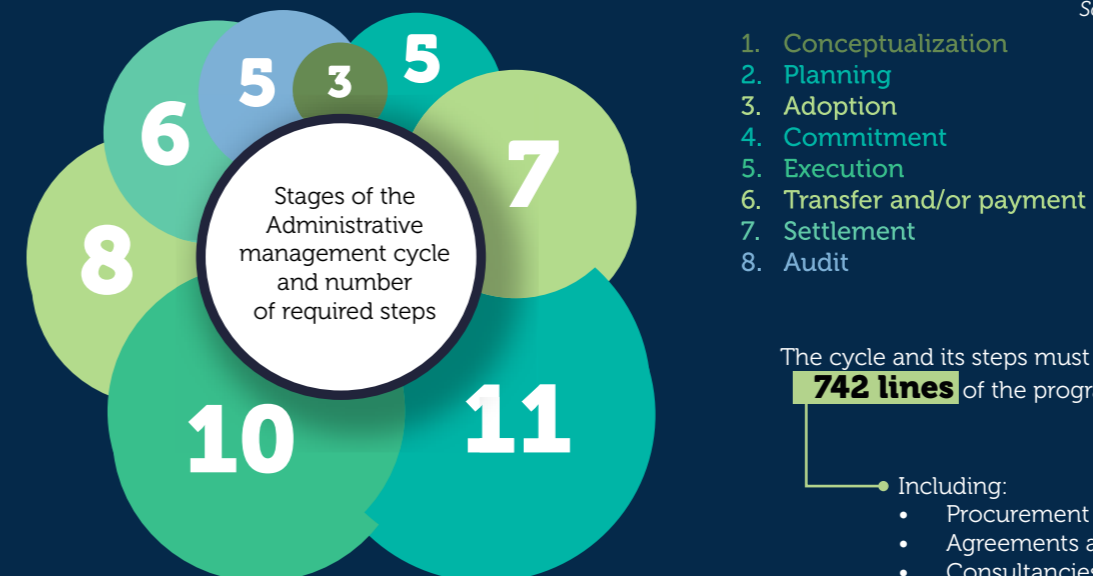
The weakness of most of these organizations implied an extra effort by having to link third parties to support them through different legal

instruments such as sub-agreements, agreements and co-execution agreements. It also required the creation of new monitoring tools.

One of the effects of the planning difficulties is evident in the project execution times. Initially, it was agreed that the project would be executed in five years, but this has been extended to seven years.

The constant changes in procedures and contracts is another sign of the need to think of administrative systems specific to this region.

Source: Fondo Patrimonio Natural

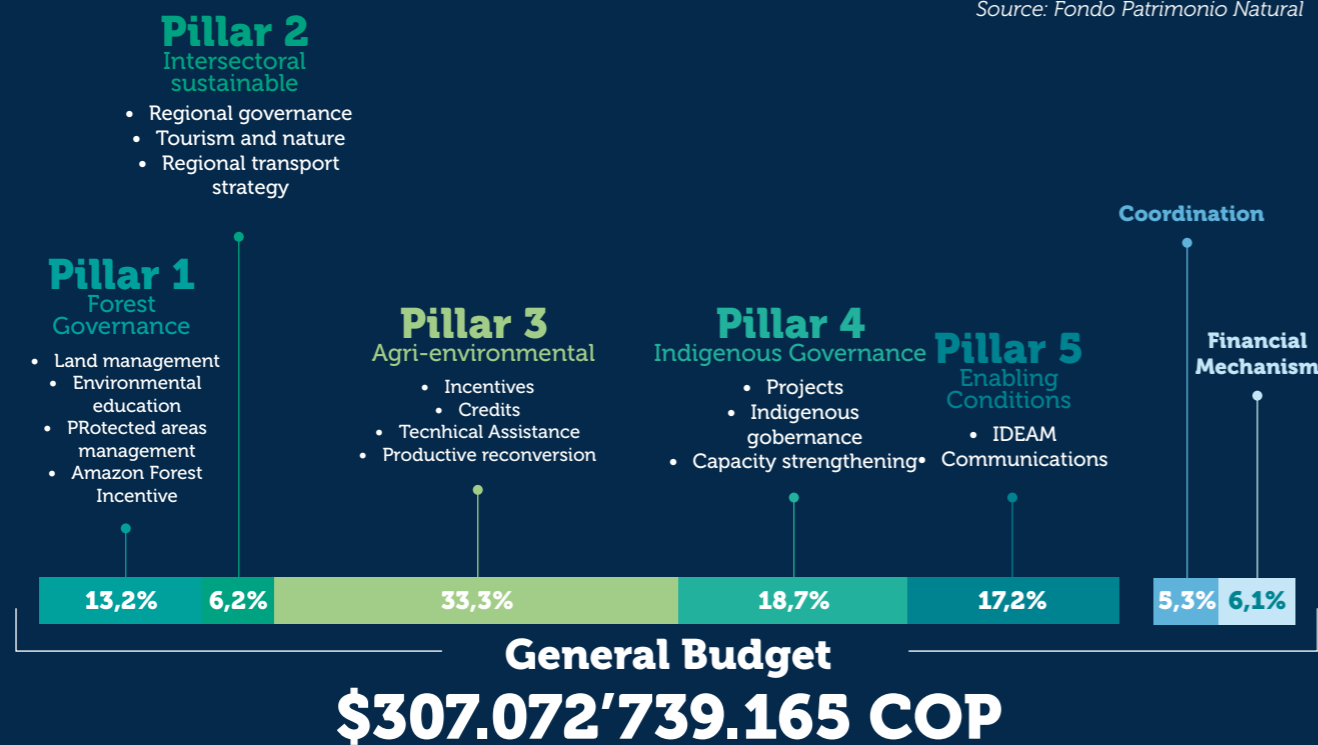


Figures refer to the number of steps in each stage.

The cycle and its steps must be taken in each of **742 lines** of the program's work areas.

- Including:
- Procurement
 - Agreements and Sub agreements
 - Consultancies
 - Contractors

Source: Fondo Patrimonio Natural



Other expenses to reach the field



6,87%
Additional contractors



7,65%
Consultancies



2,83%
Goods, services and supplies

Fifth challenge: Information systems

The volume and flow of information of a program is proportional to the amount of resources executed in its different modalities. One of the great challenges for the financial mechanism of Visión Amazonía has been to consolidate, together with the Coordination Unit, a system that provides reliable and timely information on the different processes involved in financial and administrative management.

The difficulties described above are evident from the outset in the planning of the program, which, in addition to being complex as described above, generally did not take into account the implications of the contracting procedures. In particular, there were gaps regarding the issue of indigenous people: how many communities were going to be worked with? where were they located? what could be financed from what they required? The program, without adjusting its execution goals or the planned pace, continued to resolve them as the execution progressed. This was particularly difficult for Patrimonio Natural since, administratively, planning is one of the first steps in preparing the Fund's teams and capabilities to respond to program needs.

The information related to field logistics tested implementation schemes in places of difficult access, with communication and interconnection difficulties. Specifically, it has been a major challenge to procure and deliver cash resources to indigenous communities.

The follow-up and monitoring front was developed to harmonize planning tools, decision-making arrangements and the most optimal allocation of funding resources. Throughout these six years, several methodologies and technological tools for follow-up were designed jointly with the Program Coordination, with the expectation of having a scheme as integrated as possible and automating the process as much as possible.



Successful projects such as #RutaSierraDeLaMacarena executed by Natupaz have been visited by the aid workers. There are nine tourism service providers that have involved single mothers, youth and children throughout the entire production chain.

Photo: Wilmar Mogollón

Documentos Visión Amazonía Programa REM



Acuerdos de conservación



Salvaguardas GIRSA



Salvaguardas RIS¹⁷ I



Salvaguardas RIS¹⁷ II



Salvaguardas RIS¹⁷ III



Salvaguardas RIS¹⁷ IV



Salvaguardas RIS¹⁷ V

Anexos

Documentos

Códigos QR de los documentos del programa

VISIÓN AMAZONÍA
Programa REM

Documentos Pilar Gobernanza Forestal



IFA³ - Evaluación EX-ANTE



IFA³ Resultados



Incentivo Forestal Amazónico



PMFC¹⁰ Los Puertos Coagroitilla



Plan de Ordenación Forestal - Guaviare



Presentación POF¹² Guaviare



Núcleos de Desarrollo Forestal

Documentos Pilar Desarrollo Sectorial



Diagnóstico Ambiental Estratégico



EAE⁰ - Alternativas



EAE⁰ - Diagnóstico



EAE⁰ - Estado del Arte



EAE⁰ - Factores críticos de decisión



EAE⁰ - Retos de la zonificación ambiental



EAE⁰ - Zonificación ambiental



Evaluación Ambiental Estratégica - EAE



EOT¹ - Calamar, Guaviare



EOT¹ - Cartagena del Chairá, Caquetá



EOT¹ - Carurú, Vaupés



EOT¹ - El Retorno, Guaviare



EOT¹ - En el marco de la sentencia



EOT¹ - La Macarena, Meta



EOT¹ - Leguízamo, Putumayo



Evaluación Estratégica Ambiental



MOTRA⁵



PATIS⁶ Infografía



EOT¹ - Mapiripán, Meta



EOT¹ - Miraflores, Guaviare



EOT¹ - Puerto Guzmán, Putumayo



PATIS⁶ Plan de Participación



PATIS⁶ Resumen Ejecutivo



Plan Amazónico de Transporte Intermodal Sostenible



EOT¹ - Puerto Rico, Caquetá



EOT¹ - San Vicente del Caguán, Caquetá



EOT¹ - Solano, Caquetá



Plan de Energización Rural del Caquetá



PER⁷ Caquetá - Caracterización demanda de energía



PER⁷ Caquetá - Metodología de Priorización



EOT¹ - Uribe, Meta



EOT¹ - Vistahermosa, Meta



Evaluación Estratégica Ambiental, estado del arte



PER⁷ Caquetá - Proyección de la demanda de energía



RAP Amazonía¹⁴



Turismo de Naturaleza: Alternativa Productiva



Zonificación Ambiental retos

Documentos Pilar Desarrollo Agroambiental



Alianzas Productivas - Tabla



Colombia Sostenible - Tabla de proyectos



Estrategia Cadena PNMB² Guaviare



Estrategia Sectorial Cacao, Caquetá



Estrategia Sectorial Cacao, Guaviare



Estrategia Sectorial Caucho, Caquetá



Estrategia Sectorial Caucho, Guaviare



Estrategia Sectorial PNMB² Caquetá



Extensión Agroambiental



Instrumentos Financieros Verdes



Manual de Extensionista Agroambiental



Proyectos Agroambientales

² PNMB: Productos No Maderables del Bosque

Documentos Pilar Gobernanza Ambiental con pueblos Indígenas



PIVA° - Guía de presentación de proyectos



PIVA° - Manual de formatos de proyectos



PIVA° - Resultados Cuidadoras de La Amazonía



PIVA° - Resultados ejecución Cuidadoras de La Amazonía



PIVA° - Resultados primera convocatoria



PIVA° - Resultados segunda convocatoria



PIVA° - Resultados tercera convocatoria



PIVA° - Tabla de proyectos



Cuidadoras de la Amazonía - Análisis de la Ejecución



Cuidadoras de la Amazonía

Documentos Pilar Condiciones Habilitantes



Cifras de deforestación 2017



Cifras de deforestación 2018



Cifras de deforestación 2019



Cifras de deforestación 2020



Cifras de deforestación 2021



SMByC18 Antecedentes



SMByC18 Resumen Ejecutivo



SMByC18



Norwegian Ministry
of Climate and Environment



Funded by
UK Government



KFW